OE FORM 6000, 2/69

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION

ERIC REPORT RESUME

ERIC ACC. NO. ED 033 264

IS DOCUMENT COPYRIGHTED? YES ☐ NO ☒

ERIC REPRODUCTION RELEASE? YES ☒ NO ☐

LEVEL OF AVAILABILITY I ☒ II ☐ III ☐

CH ACC. NO.	P.A.	PUBL. DATE	ISSUE
AA 000 434	52	Jun 69	RIE MAR 70

AUTHOR
Lee, Thomas Graham

TITLE
Current Trends in Microform Use by Secondary Schools: Four Case Studies.

SOURCE CODE MVK54985

INSTITUTION (SOURCE)

SP. AG. CODE RMQ66004

SPONSORING AGENCY

EDRS PRICE 0.50; 3.20

CONTRACT NO.

GRANT NO. OEG-0-8-080077-4491(095)

REPORT NO.

BUREAU NO. BR-8-E-077

AVAILABILITY

JOURNAL CITATION

DESCRIPTIVE NOTE
62 p.

DESCRIPTORS
*Microforms; Information Storage; *Secondary Education; Secondary Schools; Instructional Aids; *Equipment; *Library Collections; Equipment Utilization; Library Equipment Manufacturers; Social Studies; Business Education; Catalogs; *Program Descriptions; Resource Guides

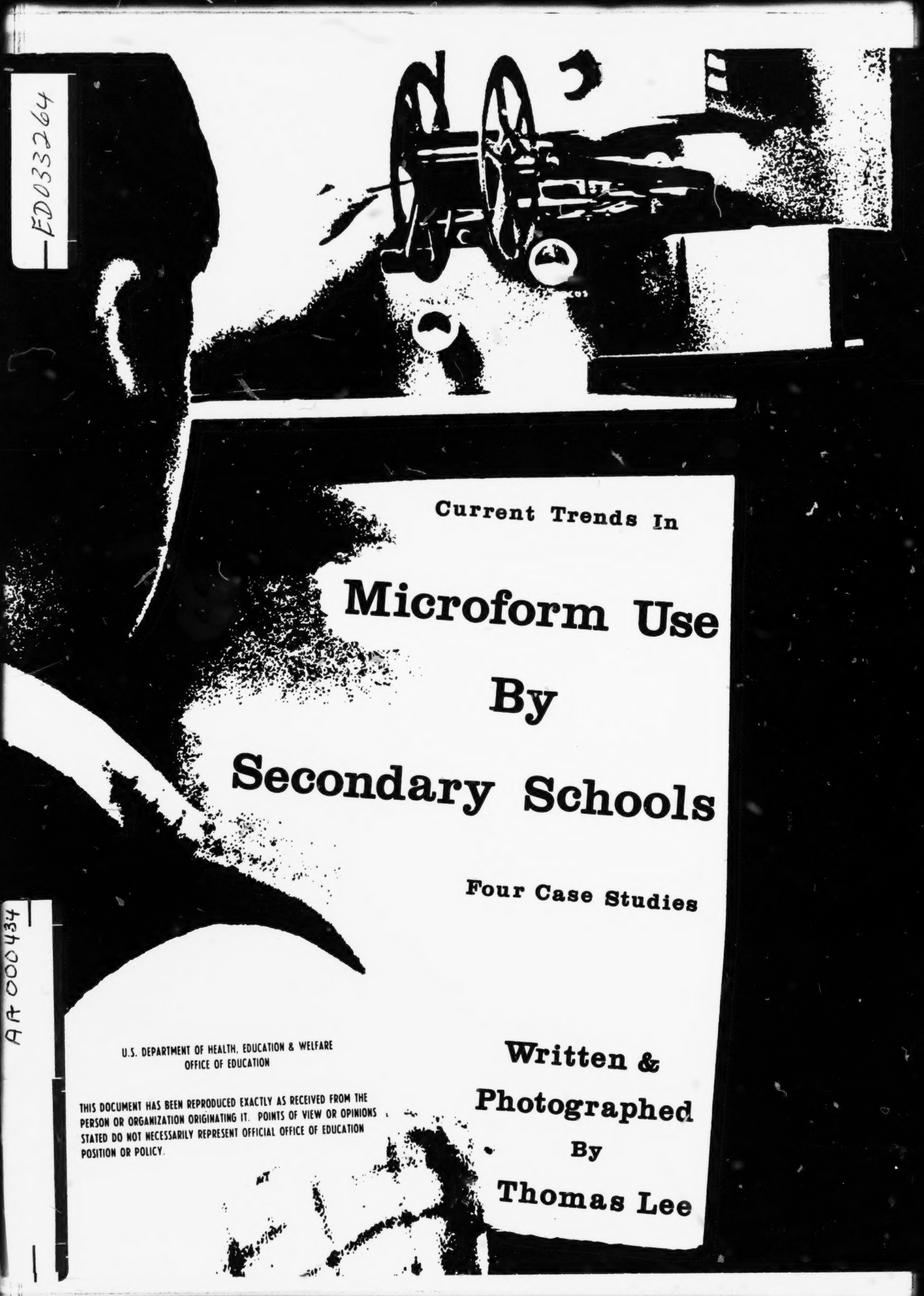
IDENTIFIERS

ABSTRACT

The case study section of this booklet discusses a number of current microform programs in secondary schools. The remainder of the booklet presents an overview of microform activity, including comments on the history of secondary school microform utilization and an up-to-date listing of microform selection aids. The amount of information available on microform is increasing rapidly, but the unavailability of adequate portable viewers has slowed the growth of microform as an instructional tool. In general, the disadvantages of microforms appear to be small in relation to their recognized advantages. While microform technology is not a panacea to improving a school's ability to provide instructional materials, microforms are seen as a tested, modern, efficient, and economical medium for the storage and retrieval of information. Dynamic, creative and imaginative leadership is needed if the full benefits of microform technology are to be realized in the secondary school. The future of microform use by secondary schools is difficult to predict, except to say that microforms in some form will likely provide one solution, perhaps the best solution, to providing sufficient instructional materials to the children in the classrooms of our nation. (Author/DC)

ED033264

AA000434



Current Trends In

Microform Use By Secondary Schools

Four Case Studies

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

Written &
Photographed
By
Thomas Lee

BR 8-E-077
PA 52

JAN 9 1970

FINAL REPORT
Project No. 8-E-077
Grant No. OEG-0-8-080077-4491 (095)

CURRENT TRENDS IN MICROFORM USE BY SECONDARY SCHOOLS: FOUR CASE STUDIES

Thomas Graham Lee
Mona Shores Schools
3875 Grand Haven Rd.
Muskegon, Mich. 49441

June 1969

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Office of Education
Bureau of Research

CURRENT TRENDS IN

MICROFORM USE BY SECONDARY SCHOOLS

FOUR CASE STUDIES

Written &
Photographed
By

Contracting Institution
MONA SHORES SCHOOLS
MUSKEGON, MICHIGAN

DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION

The research reported herein was performed pursuant to a grant with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

GRANT NUMBER
OEG 0 8 080077 4491 095

First printing 1969

PREFACE

"Current Trends In Microform Use By Secondary Schools: Four Case Studies," not only brings together new data on the educational use of microforms by four secondary schools, but also reviews the field of secondary school microform activity. However, from the outset the author does not wish to represent this report as being something more than it is --- it offers starting points for further thought and not answers to all questions. The cases and allied information do not represent, in any statistical sense, the American secondary school experience with microform usage.

This is also not a technical handbook on microforms. It assumes, on the part of the reader, some basic knowledge of microform technology. It is worthwhile to mention at this point an excellent pamphlet written by Robbins entitled, "Microfilm and the School Library; Background for School Librarians." Written in 1967, and currently in the state of being revised, it is a brief but generally unbiased reference to some of the basic technical aspects of microforms being used by the secondary schools. This and a few additional sources for technical information may be found in "Suggested Reading" at the end of this report.

From a practical point of view, "Current Trends In Microform Use By Secondary Schools," attempts to provide the school media specialist, librarian and educational administrator additional information on which to base professional decisions concerning microform programs for secondary schools. It is hoped that the reader will find this survey useful and rich with ideas.

The author wishes to express his sincere appreciation to University of Michigan faculty members Ford Lemler and Frederick Goodman for their encouragement and suggestions, to Charles St. Louis and others from Mona Shores Schools for their cooperation, to the microform manufactures who so freely provided information, to Nancy Peace who did the retrospective search of the literature (and other tasks), and to the many persons from other locations who offered helpful suggestions.

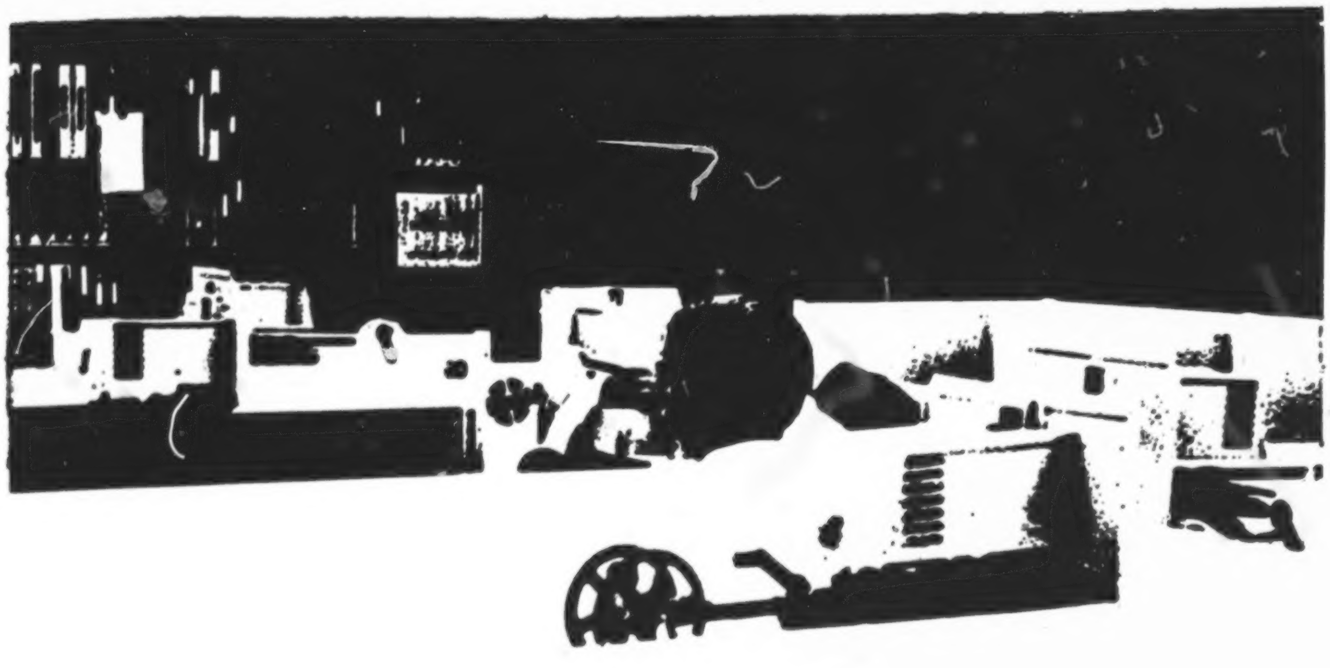
THOMAS GRAHAM LEE
The University of Michigan
Ann Arbor 1969

CONTENTS

Preface iii
Contents v
Purpose and Plan 7
Overview 9

PORTFOLIO OF CASE STUDIES

Lakewood, N.J. 17
Muskegon, Mich. 26
Green Bay, Wis. 34
Chicago Suburbs 42
Software 49
Hardware 55
Summary and Recommendations 59
Helpful Information 61
Bibliography and Suggested Reading 62



PURPOSE AND PLAN

Organization. The major purpose of this booklet is to report on four successful approaches to microform use by secondary schools. The schools included in the "Portfolio of Case Studies " were chosen so as to present as many different uses of microforms as possible.

This booklet also pulls together other relevant information on microform: (1) An overview of the history of secondary school microform use, including some outstanding microform projects. (2) A software section on microform selection, with a listing of current selection aids. (3) Some brief remarks concerning the problems of viewing equipment. (4) Some useful addresses and an annotated bibliography of recommended reading.

Needed --- an application and case study catalog To date, microform use by secondary schools has not been adequately studied or reported. It would be worthwhile as more schools adopt microform programs to carefully catalog and keep track of each successful application. This would create a classification of models from which an educational administrator or media specialist could select the components which would suit his own unique school situation. In a sense, this report is a beginning step to create such a classification --- it is, in fact, a kind of application and case study catalog of current microform uses by secondary schools.

The need for microform programs. Why should schools even consider the use of microform? The rationale is based on the fact that microforms are a tested method by business, industry and government for the efficient and economical handling of information. In recent years secondary school educators responsible for the storing and retrieving of information (e. g., librarians, media specialists) have been involved in the complex puzzle of meeting growing demands for instructional information. While the factors behind such demands for better information services are complex, the major ones are likely:

1. Rising recommendations by state, regional, and national standards for increased information services. For example, the newly published *Standards for School Media Programs* have doubled their recommendation concerning the size of the book collection from 10 to 20 books per pupil.
2. Changing teaching methods, such as increased emphasis for independent study and individualized instruction, demand better information services.
3. Collective bargaining by teacher organizations has resulted in demands for increased resources which will enable teachers to do a more efficient and a more professional job.

Microforms can play an important role in providing solutions, or at least partial solutions, to improving the level of information services in the secondary school.

Data collection. Three major and four supplementary approaches to the gathering of data were used. The relationship to these lines of evidence and the sections of this report are outlined below:

MAJOR SOURCES OF DATA

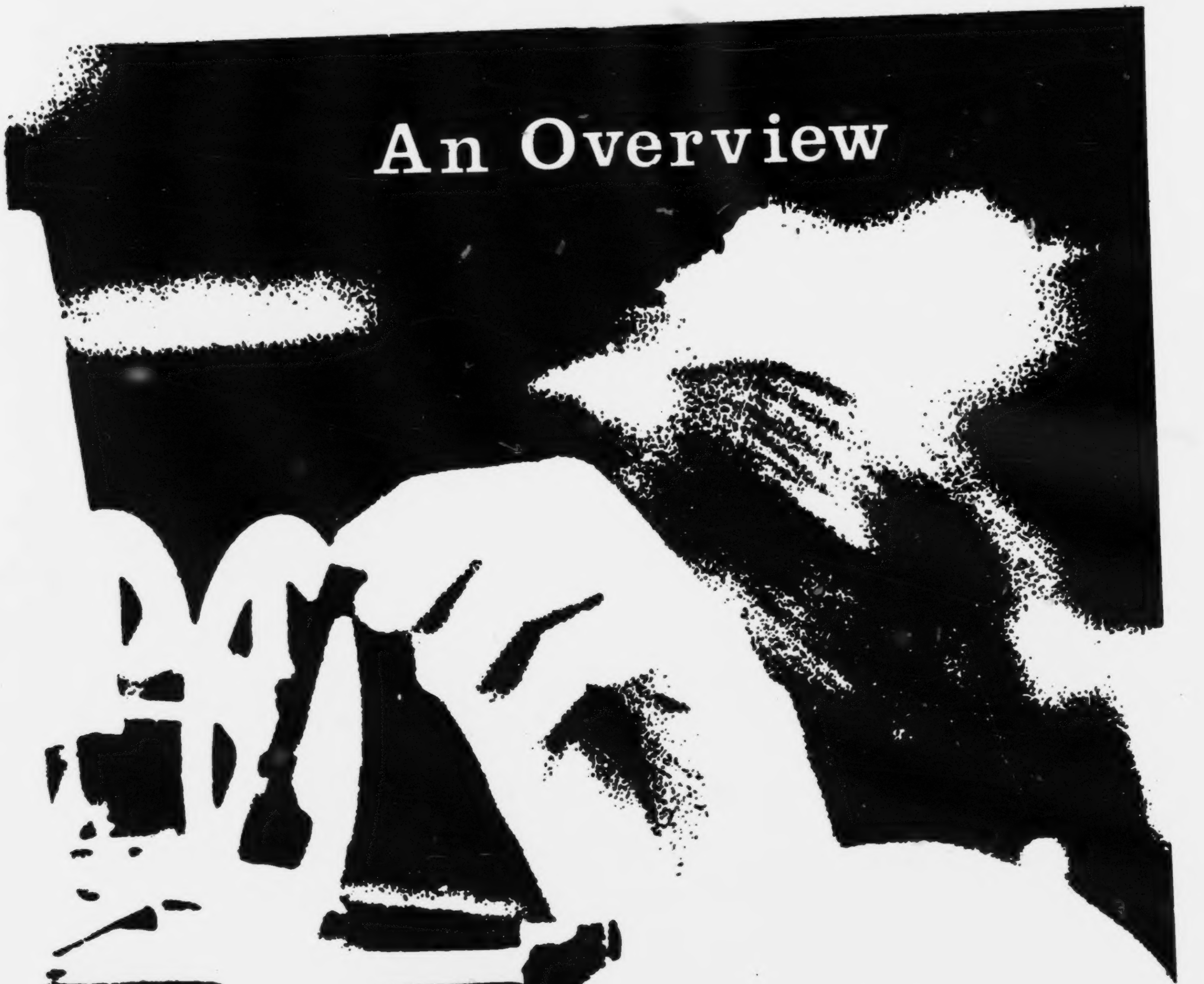
1. Search of the literature. (Overview, Software, Hardware)
2. Microform companies. (Software, Hardware)
3. Direct interviews with educators and pupils. (Case Studies)

SUPPLEMENTARY SOURCES OF DATA

1. Telephone interviews. (Special microform projects, Overview)
2. Requests for information in national publications. (Overview, Special microform projects, General background information)
3. Interviews with University of Michigan staff members. (General background information, Project guidance)
4. Post Card Microfilm Survey by the Michigan Association of School Librarians. (Overview, General background information)

Instruments. Early investigations, conducted in a most non-directive fashion, resulted in the formulation of a Discussion Outline that was followed rigorously during all interviews, so to be as consistent as possible. For the most part all verbal data during this investigation was tape recorded on a portable recorder and later transcribed so that the highest standards of accuracy could be maintained.

An Overview



THE ROMANTIC WORLD OF THE MICROFORM

Fiction and fact. The popular idea of microforms is closely linked with stories of espionage --- television and movie thrillers in which "Mission Impossible" type agents surreptitiously photograph top-secret documents and smuggle the films across a closely guarded frontier. It is interesting that this "image" is closer to the truth than most people know.

Early use of microfilm involved a siege of Paris in 1870. Rene' Dagron, a Parisian photographer who had been selling microfilm novelities, escaped from Paris, in nothing less than a balloon. Setting up headquarters in Tours, Dragon prepared micro-dispatches that were flown into Paris by carrier pigeon. Over 2,500,000 such messages were sent in this extraordinary "first airmail service."

In the 1940's, the Federal Bureau of Investigation uncovered the mystery of the micro-dots being used by the Nazis. The Germans, with the aid of a microscope, were able to reduce military messages to no larger than the dot of an "i" on a typewriter. These miniature messages were then embedded into the the paper of an ordinary letter.

From such romantic beginnings, the world of microform has grown into a multimillion-dollar industry. Microforms have attained a recognized position in business, industry, the Federal Government, and education.

Today business and industry employ microforms for myriad purposes in records control and management. Banks and insurance companies use microforms to preserve records, and industrial firms often make security copies of important plans and specifications. The Federal Government, confronted with a fantastic problem of records control has microfilmed millions of pages of material.

MICROFORM IN EDUCATION

Large libraries are early users. In education, the large research libraries were first lured to the use of microforms. They regarded it as one of the most promising media for preserving and perpetuating rare manuscripts and other unique materials. Newspapers, due to their impermanence, were also early targets for microform applications.

School records on microform. The origins of secondary school microform utilization are obscure. However, early in the 1950's, schools began using microfilm to organize and save school records.

The public schools of Cincinnati[1] and Kent,[2] Ohio, report placing their retired records on microfilm at a considerable saving of both space and money. Both districts were most conscious about security for their records. School records must be available for reference regarding such things as the educational achievement of former pupils employment references, questions about citizenship, verification of birth date, and so on. Los Angeles,[3] Fayetteville, N.C.,[4] and Pittsburg, have likewise solved some of their file control problems through microform utilization.

Microforms in the school library. Microforms entered the school library as a way of preserving a sufficient backlog of periodicals and newspapers for student reference use. Raymond Erbes, writing in the Library Journal, was one of the first librarians to see the long range benefits of microfilms in the high school library.[1] The fact that Erbes is a strong believer in microforms is evidenced in the Chicago Area case study in this booklet. A survey has revealed that the majority of California school libraries use microfilm for the storing of periodicals and newspapers. Certainly, the major concern during early microform use by schools was the saving of space.[2]

---

[1] Frank O. Sloan, "A Microfilming Program for School Records," American School Board Journal, CXXI (July 1950), 25-6.

[2] Lewis L. Burkhart, "We Microfilmed Our Student Records," Education Digest, XXIX (October 1958), 30-1.

[3] Herbert Popenoe, "Microfilming School Records," American School Board Journal, (October 1957), 46-7.

[4] James W. Carruth, "Saving Space With Microfilm," Educational Executives' Overview, III (August 1962), 51-2.

Industrial arts teachers adopt microform. Another group of educators to realize the potentials of microforms were instructors in the industrial arts. Raytown Senior High School in Missouri integrated microform into its drafting program in 1959, after a study of modern industrial practices.[3] With the purchase of a 3M Processor-Camera 1000D and a 3M Reader-Printer, students make aperture cards of their own work and drawings borrowed from nearby industry.

The success of Raytown and other schools prompted the Willman Area Vocational-Technical School near Minneapolis and St. Paul to purchase microform hardware. Instruction in microform standards for linework and lettering have reportedly resulted in considerable improvement in the quality of student work.[4] Without a doubt some of the most creative teaching involving microforms has been done by instructors in the industrial arts.

---

1. Ray Erbes, "Microfilm Solves Our Magazine Storage Problem," Library Journal, XXCIV (November 15, 1959), 3601-2.

2. John Wetzler, "Microfilm: An Answer To Your Periodical Space Problem," Junior College Journal, XXXVII (October 1966), 42-4.

3. Milton Cochran, "Creative Teaching With Microfilm," American Vocational Journal, XLI (September 1966), 26-7.

4. George LaPatka, "Spotlighting The I-E Impact Of Microfilm" School Shop, XXVII (April 1968), 98-9.

It's what on the film that counts. Current educational activities involving microforms reflect an increasing interest on what is on the microform and how it can be used --- not the fact that it is miniaturized and saves space. Factors seen as paramount include:

*** The fact that microform can bring to the classroom and the library a vast wealth of resources that were heretofore unavailable.

*** The fact that microform integrates well into sophisticated systems for the storage and retrieval of information.

*** The fact that microform is a most economical medium for publishing "on demand."

Companies who once took the attitude that they sold microfilm, now have the philosophy that they sell information. *Focus On The News*, an annotated bibliography of microfilm useful in the teaching of social studies, is a good example of this change of philosophy. *Focus*, published by University Microfilms, is discussed in some detail in the Premontre High School Case Study in this booklet.

School librarians too have gone beyond the space saving advantage of microform and are taking a closer look at what is available and how it relates to the curriculum. An extensive study of how microform influences the teaching of social studies at Shaker High School in Latham, New York, is a good example of this trend.[1]

Microfilming it yourself. Besides the microfilming of school records and drafting applications, microfilming is also being done in others areas of the school. Lakewood High School in New Jersey is providing "micrographics" as part of its business studies curriculum. This is discussed fully in the Lakewood Case Study. School libraries too have begun their own microfilming. The Nova High School in Ft.

---

[1] "Going Back to Primary Sources in the Social Studies," *Educational Equipment and Materials*, II (1968), 34-6.

Lauderdale prepares its own microform with the 1000D Filmsort Camera. Various local information and articles submitted by teachers are placed on aperture cards and duplicated on a 086 Uniprinter for distribution to the four Resource Centers at Nova.

MICROFORM PROJECTS AND ACTIVITIES

A survey. A number of projects which concern use of microform by secondary schools have been or are currently being conducted. The most ingenious and interesting of these are surveyed here:

VIEW - A regional career information service .

A microform system is providing students in sixty secondary schools in San Diego County, California, with information on occupations not requiring a baccalaureate degree. In 1968, two hundred occupational briefs on microform aperture cards called "VIEWscripts" (Vital Information for Education and Work) were prepared by the County's Career Information Center. For each occupation two VIEWscript cards were prepared, each containing four pages of information. The first card of the set contains information which is generally applicable throughout the country. The second card zeros in on local and state opportunities for that particular job. The job descriptions are reported to be much more realistic than many to be found.

Participating schools use readers and reader-printers to view the cards and make paper copies when needed.

Edwin A. Whitfield, Project Coordinator, says that ten other California counties and several states have initiated VIEW systems patterned after San Diego's model. For results of research conducted in 1967-68 on VIEW, and additional information contact: EDWIN A. WHITFIELD, Project Coordinator, Career Information Center, 6401 Linda Vista Road, San Diego, California, 92111.

Storage and retrieval of instructional materials through microfilm technology. Government funds for a planning grant have allowed three Minnesota school districts, North St. Paul, Mahtomedi and Spring Lake Park, to initiate a most innovative system to store and retrieve instructional materials.

Briefly, it works like this: INPUT: (1) Teachers suggest materials to be placed into the system. (2) Materials are cataloged for computer indexing. (3) Materials are microfilmed and mounted in aperture cards. These cards become the master cards which are filed in the retrieval center. OUTPUT: (1) When teachers make a telephone request for information, the Center's computer locates through a coding system the desired master aperture cards. (2) Duplicate cards are made and sent to the teacher for his inspection. (3) If the teacher then desires multiple paper copies of the material, the Center has facilities to "blow back" the microform to the original size and reproduce it by offset lithography.

The future of the project is somewhat in doubt due to funding.* However, this does not detract from the unusual plan of providing prompt and efficient service to teachers. For additional information contact: Mr. CLAIR HABERMAN, Microfilm Project Director, North St. Paul Maplewood Schools, Maplewood, Minnesota, 55109.

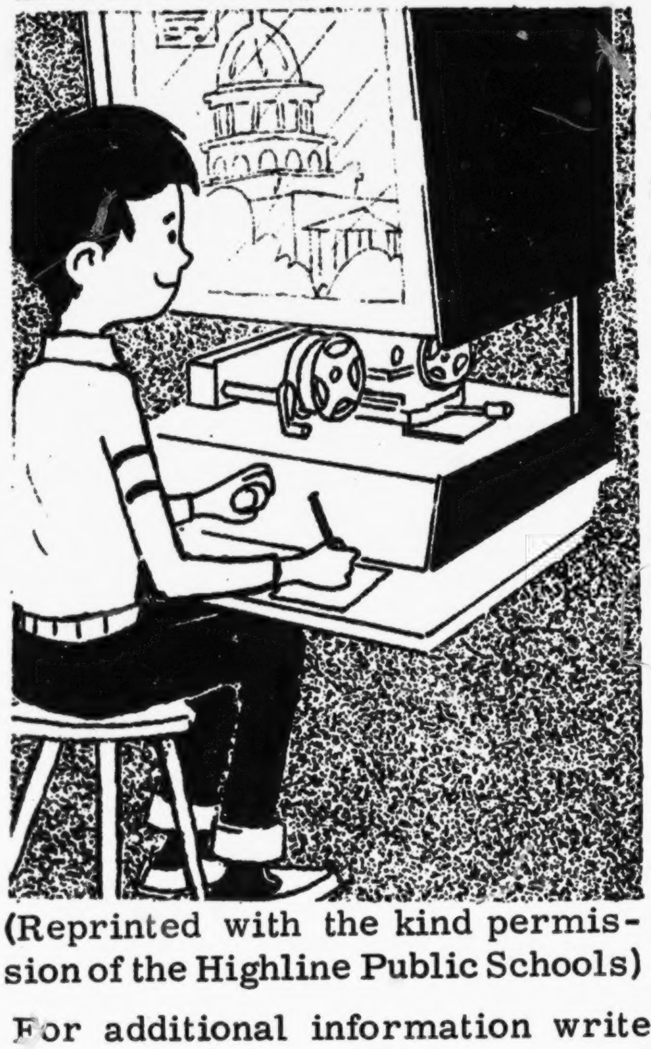
A plan for cooperative microstorage. A highly interesting prototype of a cooperative microform network to disseminate a collection of magazines, newspapers, pamphlets, and other educational materials from a central depository has been planned for the St. Louis area. The project was developed under the direction of Richard Halsey of the School District of University City, with the support of funds from Title III, E. S. E. A.

* Project terminated June 30, 1969.

The operational plans call for a central depository which would serve public, private, and parochical schools, and public libraries within an eighty mile radius of St. Louis.

Through a system involving a computer and a file access mechanism, direct image scanning and transmission of information from the central depository to participating institutions would be provided. Selected remote user terminals would be capable of providing facsimile print-outs of the microfilmed information on file at the central depository.

To date this plan has not been initiated. It is too bad because some of Halsey's ideas sound most workable. A copy of the plan may be borrowed from: THOMAS GRAHAM LEE, Project Director, Mona Shores Schools, Muskegon, Michigan.



(Reprinted with the kind permission of the Highline Public Schools)

"Project Microfilm"

The Highline High School Library, Seattle, Washington, implemented a microform project in September, 1968 to investigate:

(1) How can school libraries best use the media of microfilm?

(2) What are the space requirements of the microfilm equipment?

(3) How does microfilm affect the patterns of instruction and learning?

(4) Which materials are most important for a working collection?

Almost $20,000 in microform has been purchased with a special purpose grant from Title II, ESEA. For additional information write: Mr. Cliff Maudslien, Assistant Librarian, Highline High School, 225 S. 152nd Street, Seattle 98148.

Four Case Studies

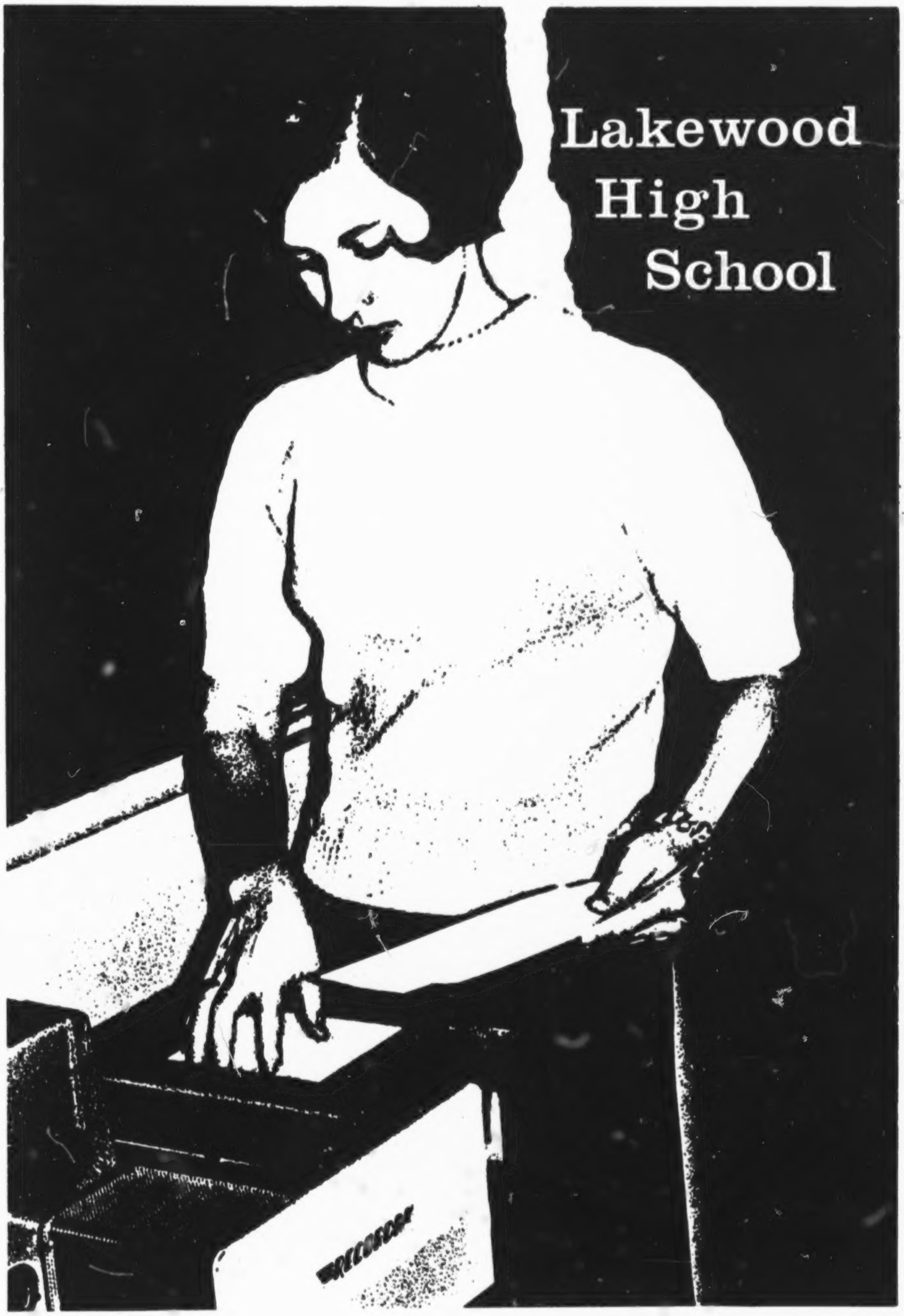
A PORTFOLIO

Lakewood, New Jersey

Muskegon, Michigan

Green Bay, Wisconsin

Chicago Suburbs

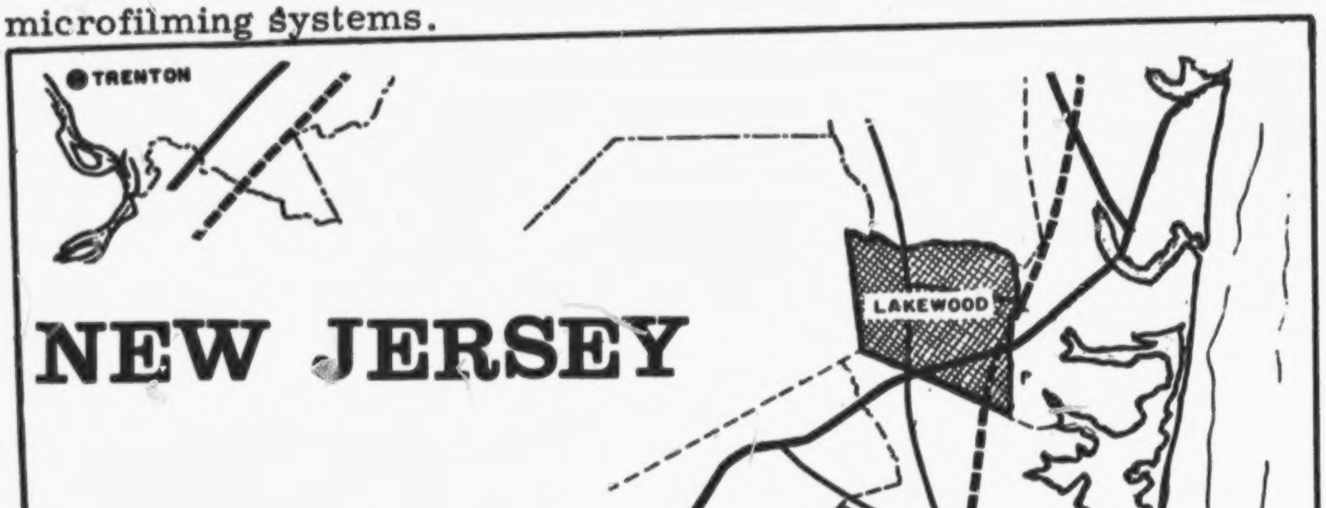

Lakewood
High
School

Lakewood, New Jersey. Lakewood, one of Ocean County, New Jersey's fastest growing municipalities, provides a visitor some refreshing thoughts of yesteryear. When the nearby towns of Trenton, Freehold and Toms River were focal points of the American Revolution, the Lakewood of today was almost a dense forest off the beaten Indian trails.

Lakewood's early history centered around the lumbering business, but in the late 1800's it became a favorite winter resort for New York Society. It was host to the Goulds, Rockefellers, Vanderbilts, Astors, and other socialites of that time, many of whom built estates in the area.

Today the resort hotels are still there, but do not flourish as they did in that earlier era. The estates too remain but not for their original purpose. The fantastic Gould estate is now the Georgian Court College. The former Rockefeller estate is the site of Ocean County Park which is adjacent to and partially surrounds the 41 acre site of Lakewood High School.

"Micrographics": training in microfilming. Lakewood High School was singled out for this investigation due to the inclusion of "micrographics" with its business studies curriculum. It is reported to be the nation's first secondary school to offer such instruction in microfilming systems.



AMERICAN BUSINESS ADOPTS MICROGRAPHICS

Micrographics, a file control medium. Just as libraries have had to face an accumulation of human knowledge estimated at being the same as that for the surface of an expanding sphere, American business has been caught in the information explosion. The quantity of records in American business grows not by a straight line rise, but rather in a parabolic curve. The sheer bulk of material has demanded some sort of orderly and efficient filing method.

American business was quick to seize upon microfilm as a file-control media. Today micrographics is clearly one of the most efficient methods for storing and retrieving all sorts of records.

Roll microfilm. Early use centered on roll microfilm. Fundamentally, the problem of retrieval of material on rolls is similar to retrieval of any record from a fixed sequence file. However, unlike documents filed in folders in a traditional bulk file, it is impossible to misfile or lose a document once it has been filmed in proper sequence. The images are locked in, side by side.

Unitized microforms. As long as space compression remained the dominant purpose of microfilm, the long roll of film was perfectly satisfactory. However, demand for rapid retrieval of a desired document located somewhere within the roll focused attention on unitized microforms. This approach proceeded along lines similar to those for filing control of conventional paper records. Documents were broken down into units together with material of like nature and microfilm took the shape of sheets (microfiche), film clips mounted in acetate jackets, frames mounted in aperture cards, and like forms. Coupled with advances of positional coding, electronic searching and other electronic data processing techniques, micrographic technology has to date achieved a high degree of development. This is particularly evident in the cross indexing and rapid search for specific information.

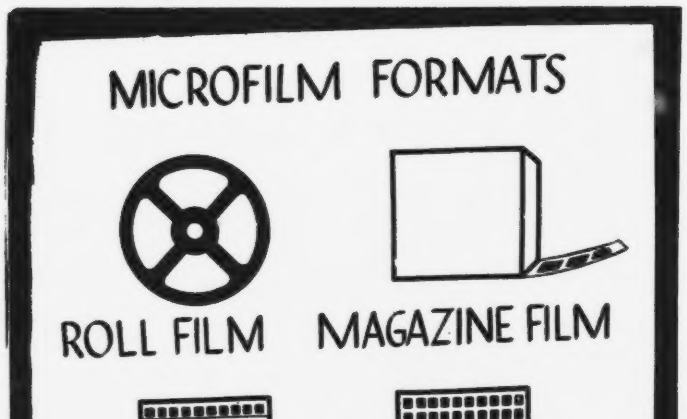
LAKEWOOD ADOPTS MICROGRAPHICS

A real and relevant experience. The philosophy behind Lakewood's micrographics venture is the belief that pupils can be best prepared for future jobs by offering them in school as many real and relevant experiences as possible. That is exactly what the micrographic program does. It offers pupils practical experiences from which they may develop some basic skills in file control utilizing microforms. In addition, the program aims to acquaint the pupils involved with a basic background and recent developments in the anything but static world of micrographics.

The man behind the program, Assistant Principal Stanley Banas, with the excellent support of the instructors involved, has taken the program into its second year with only minor changes. Banas, a most creative educator and administrator who admits to "liking automation," says concerning the starting of the program, " I saw a need for it. "

The hardware. The equipment involved, underwritten by the Education and Secondary Education Act, Title I, includes a portable microfilmer and a reader-printer. After careful investigation of various manufacturers, Banas chose equipment by the Eastman Kodak Company, "even though it was more expensive. " His reasons:

1. The overall excellent quality of the equipment.
2. The service provided.



TRAINING AID used for group instruction shows common formats of microfilm.

The courses involved. Two courses at Lakewood are involved with the micrographic program. These are Secretarial Office Practice and Clerical Office Practice which are offered to senior pupils (generally girls) preparing for office work.

Both courses introduce the pupils to modern office practices and machines. While secretarial office practice includes and emphasizes dictation and transcription, clerical office practice omits these skills and places emphasis instead on more general office duties.

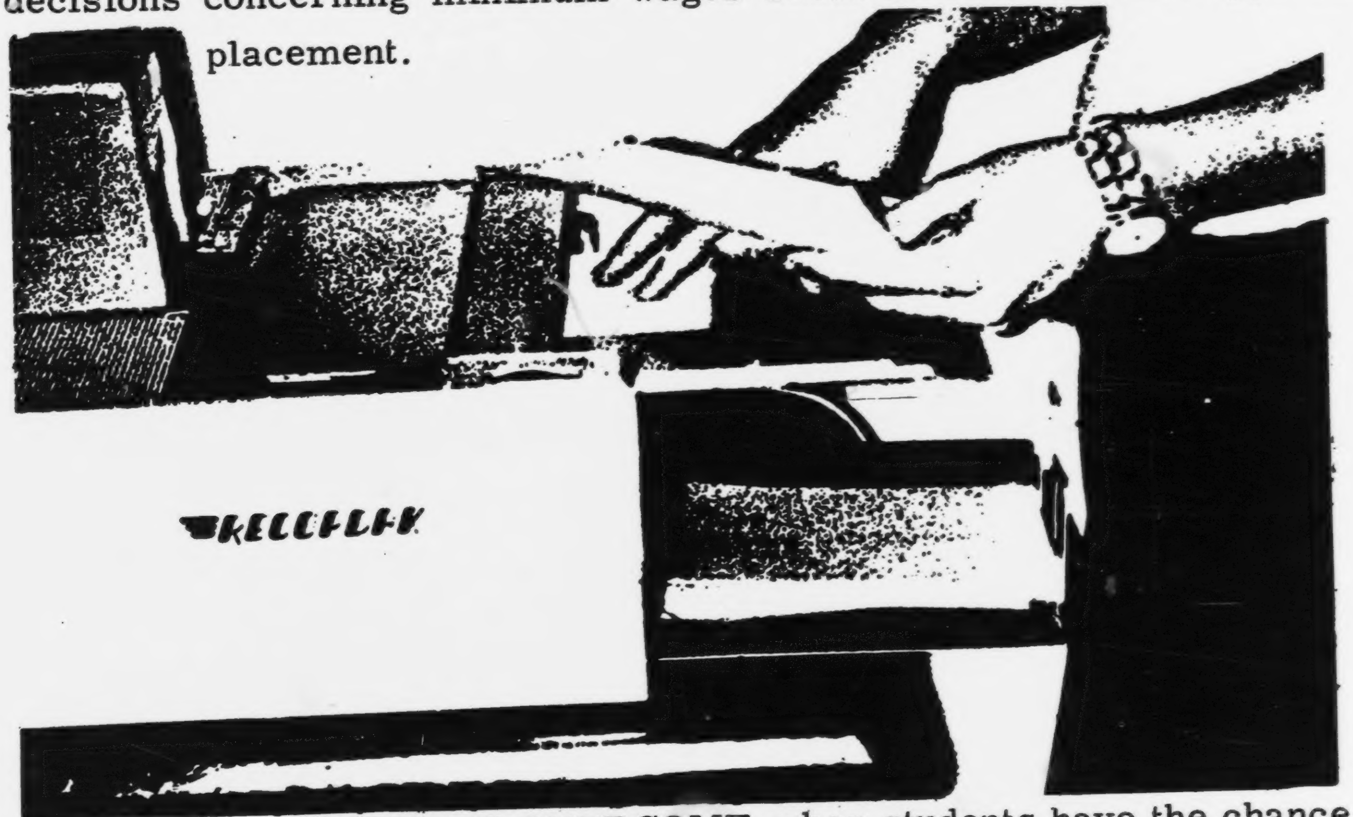
File Control. It was in the common area of file control in these courses that micrographics were introduced. During the first year of the program, the micrographics unit was presented in a six week block of time to 35 senior girls. During this instruction, the students had the opportunity to examine and generalize from sample microform files as they might be set up for various business applications. Some examples were: credit bureaus, savings and loan associations, banks, public utilities, law offices and so on.

Students also had the opportunity to take an actual file of school correspondence and apply micrographic techniques to it by organizing and microfilming it.

STUDENT SELECTS documents from a traditional file to be prepared for microfilming.

The students learned how to use the reader-printer to locate various documents requested of them by the instructor. They made "hard" (paper) copies when asked to do so.

Changes in the second year. The major change in this year's operation of the program is that the pupils work with the equipment on an individual basis, but still receive some block instruction during the unit on file control. This has worked out better. Spreading microfilming out over a longer period of time provides students with sufficient quantities of school correspondence needing to be microfilmed. During the first year, the backlog of actual items to be microfilmed soon was depleted. Also during the program's first year, students spent time outside the school working in a practical situation. Two banks, and the police department were among the operations which provided realistic experience for the pupils. This year, local legal decisions concerning minimum wages seem to rule out this type of placement.

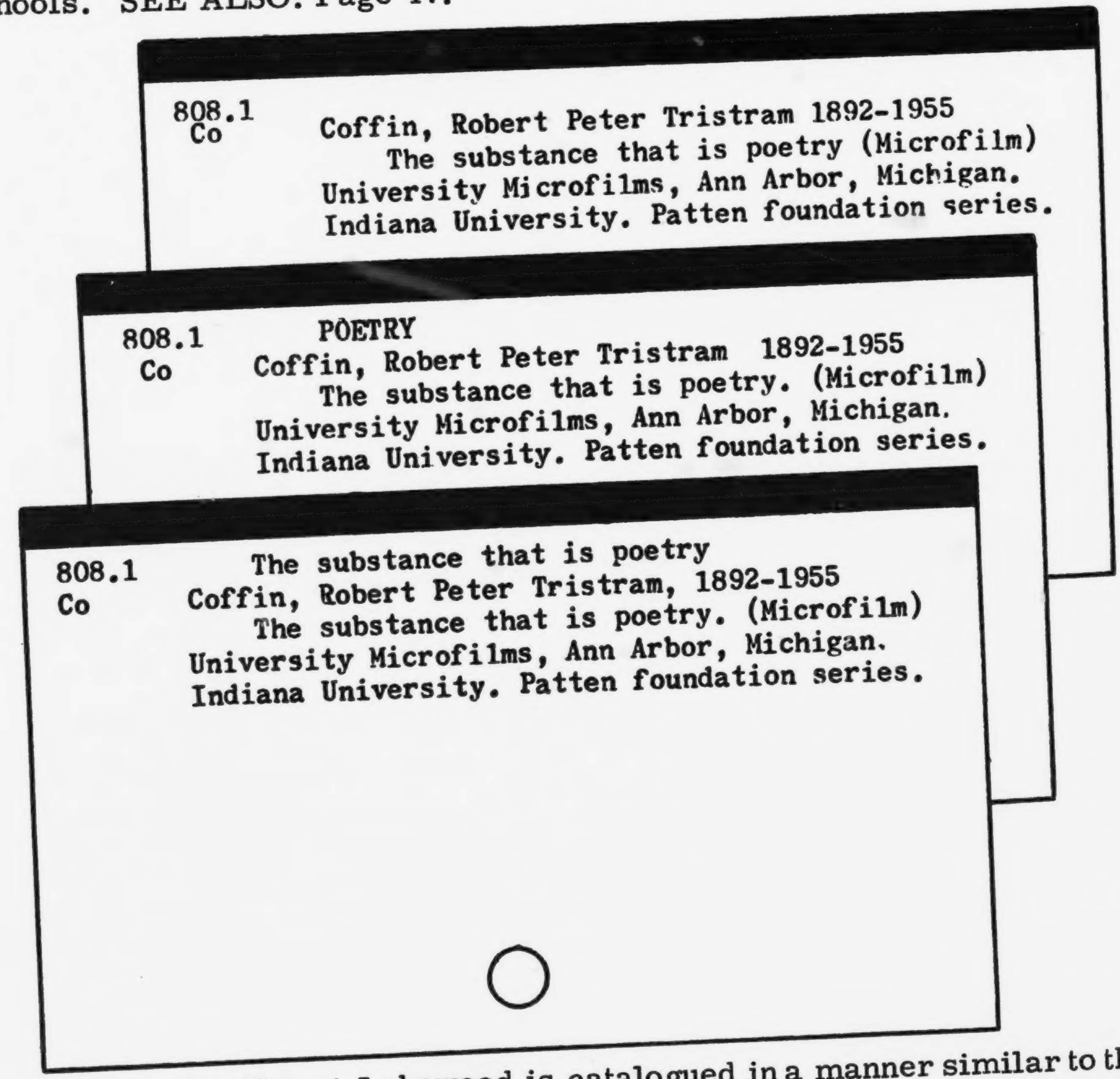


FEAR OF EQUIPMENT IS OVERCOME when students have the chance to do actual microfilming. The above student works with the equipment on an individual basis, but guidance is nearby if needed.

STUDENT USES READER-PRINTER to locate and print facsimile copies of a series of documents requested by her instructor. Signal "flags" on the film make it easy to locate an exact record on the film.

Conclusion. With the program only in the second year, the returns of its full impact are not yet in. However, it appears that the training being provided at Lakewood is needed. Van B. Philips, a past president of the National Microfilm Association, says that it is most desirable for a secondary school to provide experiences in micrographics. This field has a potential of perhaps 100,000 or more jobs. Philips goes on to say that a school could have a system similar to Lakewood's in operation for an investment of no more than $1, 500.00.

Other microfilm at Lakewood. It comes as no surprise that Lakewood is using microfilm in a most extensive manner in other parts of the school. Of special interest are developing subject collections of microfilm and equipment outside the confines of the centralized library. The social studies and English departments are both building their own special collections. Such decentralization, an attempt to provide better service, seems to be a growing trend in secondary schools. SEE ALSO: Page 47.



808.1
Co
Coffin, Robert Peter Tristram 1892-1955
The substance that is poetry (Microfilm)
University Microfilms, Ann Arbor, Michigan.
Indiana University. Patten foundation series.

808.1
Co
POETRY
Coffin, Robert Peter Tristram 1892-1955
The substance that is poetry. (Microfilm)
University Microfilms, Ann Arbor, Michigan.
Indiana University. Patten foundation series.

808.1
Co
The substance that is poetry
Coffin, Robert Peter Tristram, 1892-1955
The substance that is poetry. (Microfilm)
University Microfilms, Ann Arbor, Michigan.
Indiana University. Patten foundation series.

All microfilm at Lakewood is catalogued in a manner similar to that for ordinary books. Two sets of color banded cards are made for each item on microform. One set is filed in the central library catalogue, the other set in a special audio-visual catalogue.

Mona Shores
High School

Mona Shores High School Mona Shores High School Library is unique in that it typifies a common model found for microform services to secondary school pupils. Despite the fact that its program is new and in an early stage of development, its successes and failures to date provide a useful vehicle to examine an on-going microform program.

Mona Shores High School can be described in general terms as suburban and relatively affluent. Its curriculum is mainly college preparatory in nature, with a high percentage of its graduates going on to college. As of the moment, the problem of the culturally or economically disadvantaged child is not of any significant proportion. The high school plant itself is new and modern and currently serves some 1,600 pupils in grades 9 through 12.

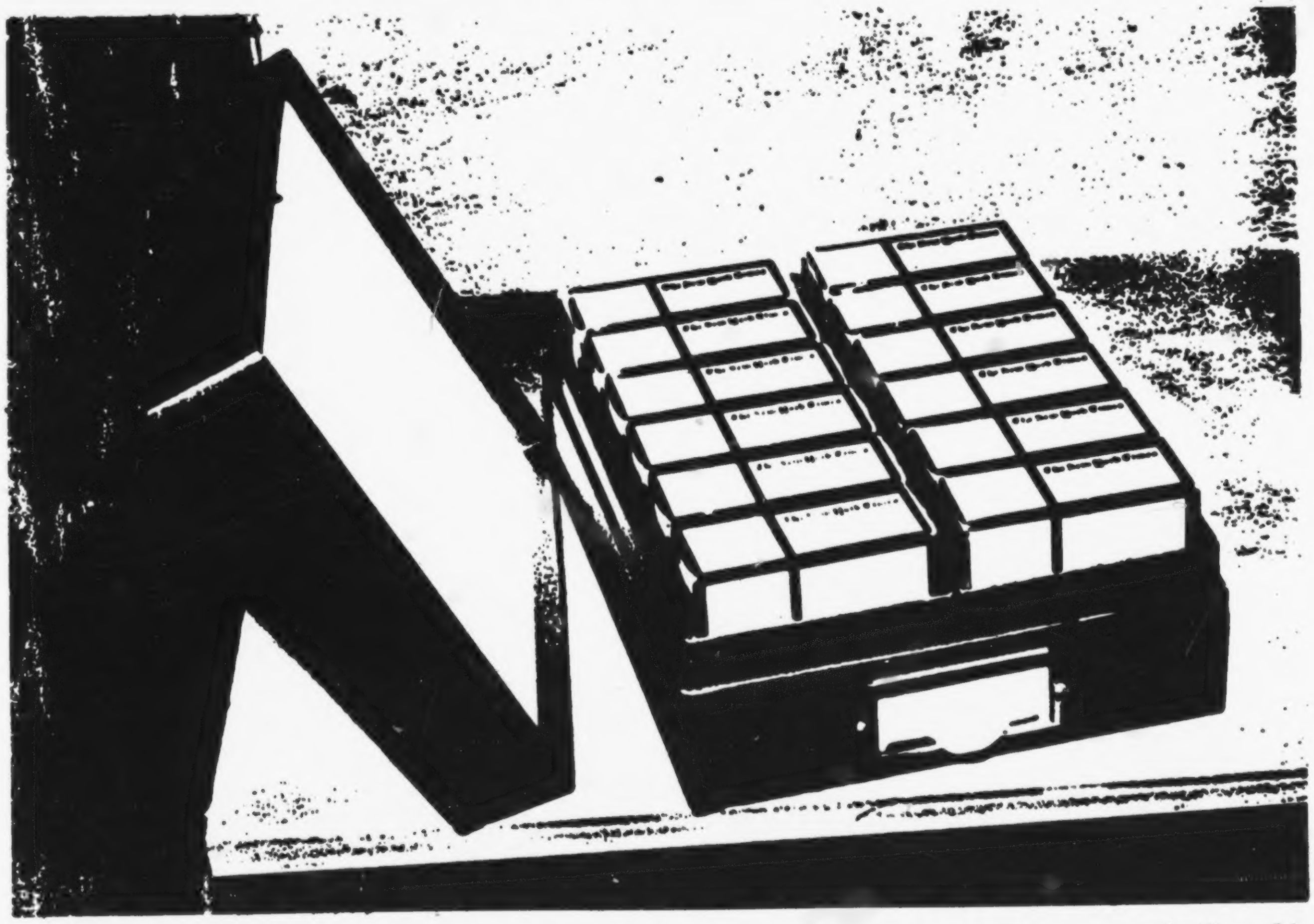
The library is likewise modern, carpeted, well equipped, adequately staffed, with a strong collection of 13,000 volumes. Its budget has varied, but has at times met the 1960 A. L. A. recommendations of $4.00 to $6.00 per pupil.

Like many school libraries, Mona Shores began using microforms as a means of strengthening and expanding its resources in periodical literature. It did so to meet the growing demands of the curriculum for sufficient resources for individualized inquiry and discovery. After careful planning, including thorough study of current periodical use, and with the support of the administration and faculty chairmen, Mona Shores launched its venture into microform use in 1966.

Initially with the use of both local and Government monies (Title II, E.S.E.A.) 45 current subscriptions were ordered on a "till-forbid" basis, plus a six-year backlog for each of the 45 titles selected. The following year additional subscriptions were picked up plus the full service from the New York Times, providing the daily and Sunday Times on microfilm plus the Index.

Selection criteria. The following criteria were developed for a selection policy pertaining to microforms:

1. Periodicals should be indexed in the Readers' Guide or Education Index.
2. Demand by pupils should be considered.
3. Recommendations by the faculty should be studied.
4. Periodicals that do not make excessive use of pictorical material or color should be considered for first purchase.
5. Periodicals with generally short articles should be given priority.
6. Periodicals which had a short backlog, because they were recently subscribed to, should be considered.

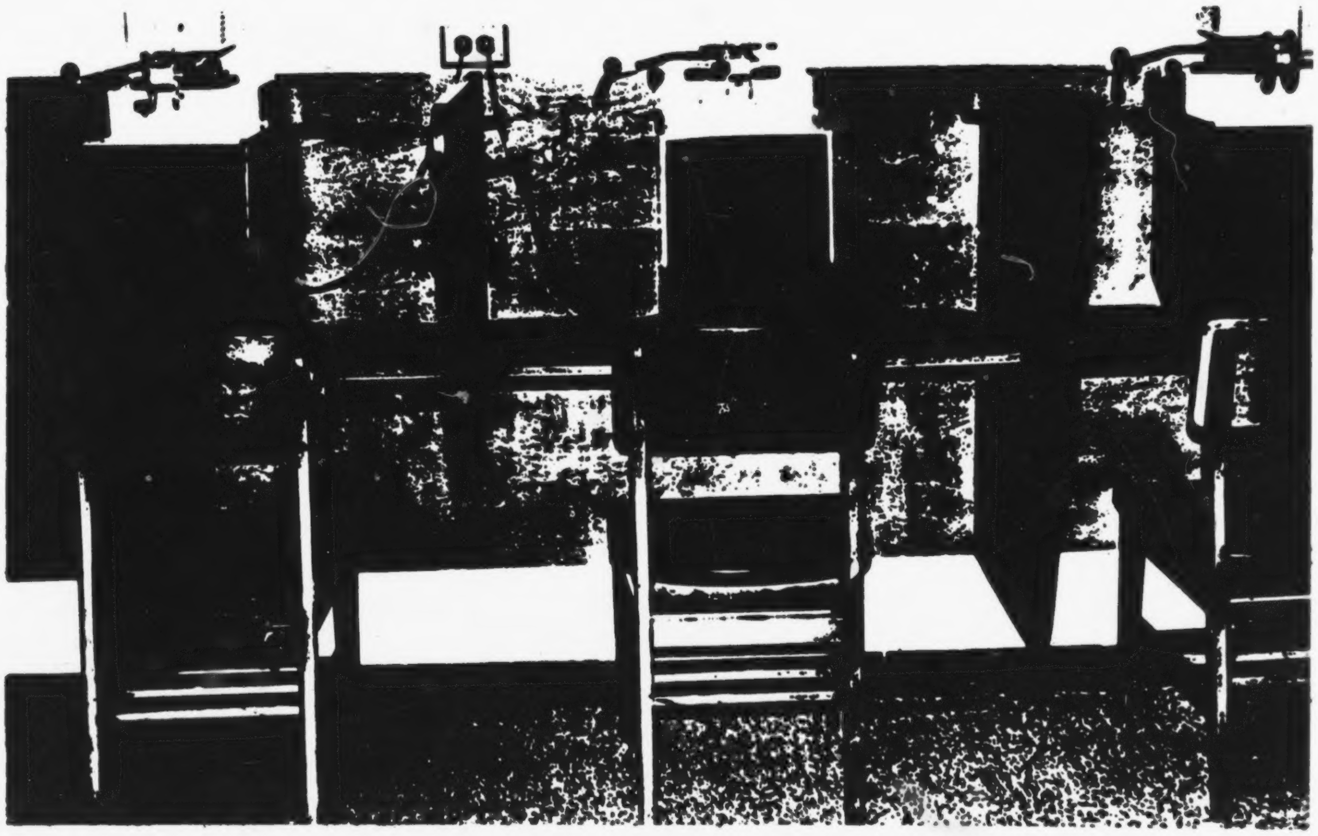


HOUSING THE MICROFILM. Existing physical features of the library made it advantageous to house the microfilm in boxes on traditional library shelving. Such boxes are inexpensive and can hold 12 rolls of 35mm film.

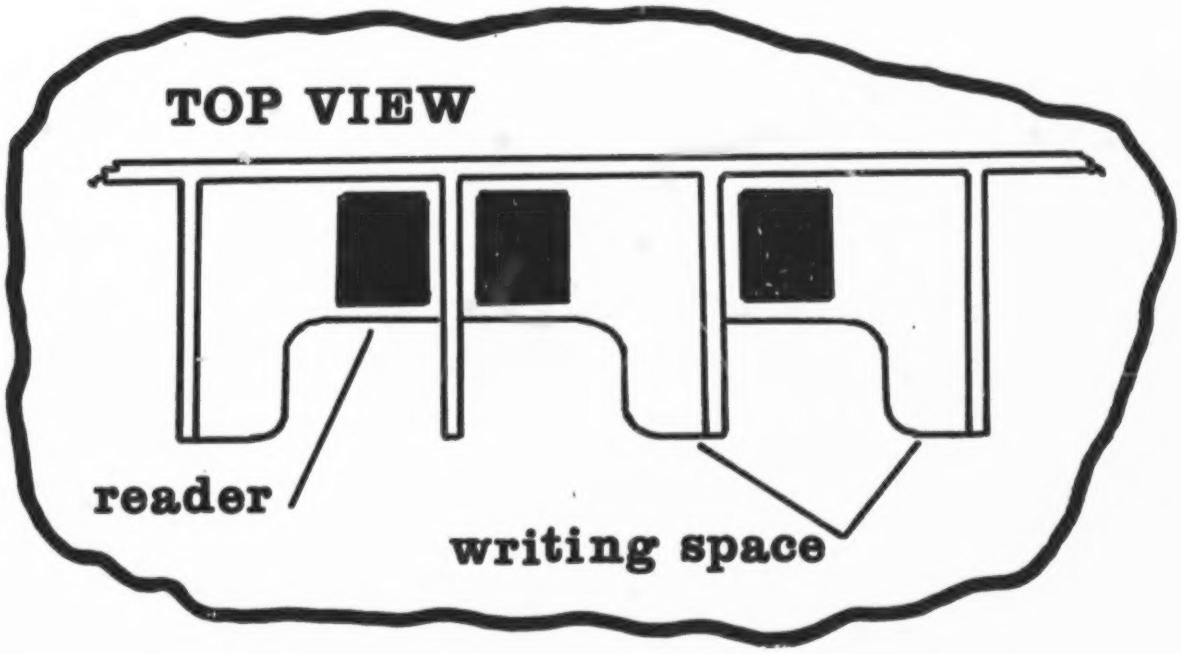
Housing the viewers. Since microform use is primarily independent and individualized in nature, it was decided to use carrels to house the viewers. Most mass produced commerical carrels, designed to meet general needs, did not seem appropriate for housing microform readers.

After considerable discussion between the library staff and visits to other schools, and a further re-examination of commercially built carrels, it was decided that a bank of hanging wall carrels, built by local carpenters, would best suit Mona Shore's particular needs.

In the development of final drawings for production, much attention was paid to the educational specifications. That is, exactly how the carrel would be used, and exactly how the equipment would fit in. For example, the University Microfilm viewer to be used had a rotating film transport to permit vertical viewing regardless of image format on the film. Thus the carrel sides had to be low enough to allow for such rotation.



After more than two years of rough treatment, the carrels have stood up well. A close evaluation of their use reveals a flaw that could be modified in future construction. A better writing area could be produced by changing the shape of the carrel's top to provide more room. Such a modification could furnish additional space for either a left or right-handed pupil. Sketch below shows recommended change:



MICROFILM
READERS

From the outset it was decided that if the program was to be successful, sufficient viewers would be necessary. Like many high schools, Mona Shores turned to an inexpensive model sold by University Microfilms.

Six of these readers were initially purchased. At Mona Shores, it is easily observed that they have not stood up well under hard use. Nevertheless, considering the price, they have served well in getting the program off the ground. But better and more rugged readers are a must in a long-range program.

The problems of viewer safety arose recently when a pupil stuck his elbow through a viewer's screen and cut himself. In buying a viewer the librarian must attempt to anticipate how it might be abused. Since electric equipment is involved, it must be designed to be virtually foolproof, so that the student cannot accidently receive an electrical shock or injure himself on some sharp projection or edge.

PORTABLE VIEWER was purchased for the Teacher's Library, mainly for viewing research available from E. R. I. C.

Microfilm policies. The introduction of microfilm at Mona Shores was done most unobtrusively. It was explained to students as merely a change in the physical form of the information. The initial policies for microfilm use are listed below:

1. Bibliographic access to microfilm is provided by the Readers' Guide and New York Times Index.
2. Paper copies of magazines will be kept as long as possible, kept unbound, and circulated overnight.
3. Students will be given microfilms only when the paper copy is not available, since the latter is much easier to use.
4. Students will be encouraged to learn how to use the viewers.
5. Library hours will be extended after school and evenings to allow time for microfilm use.

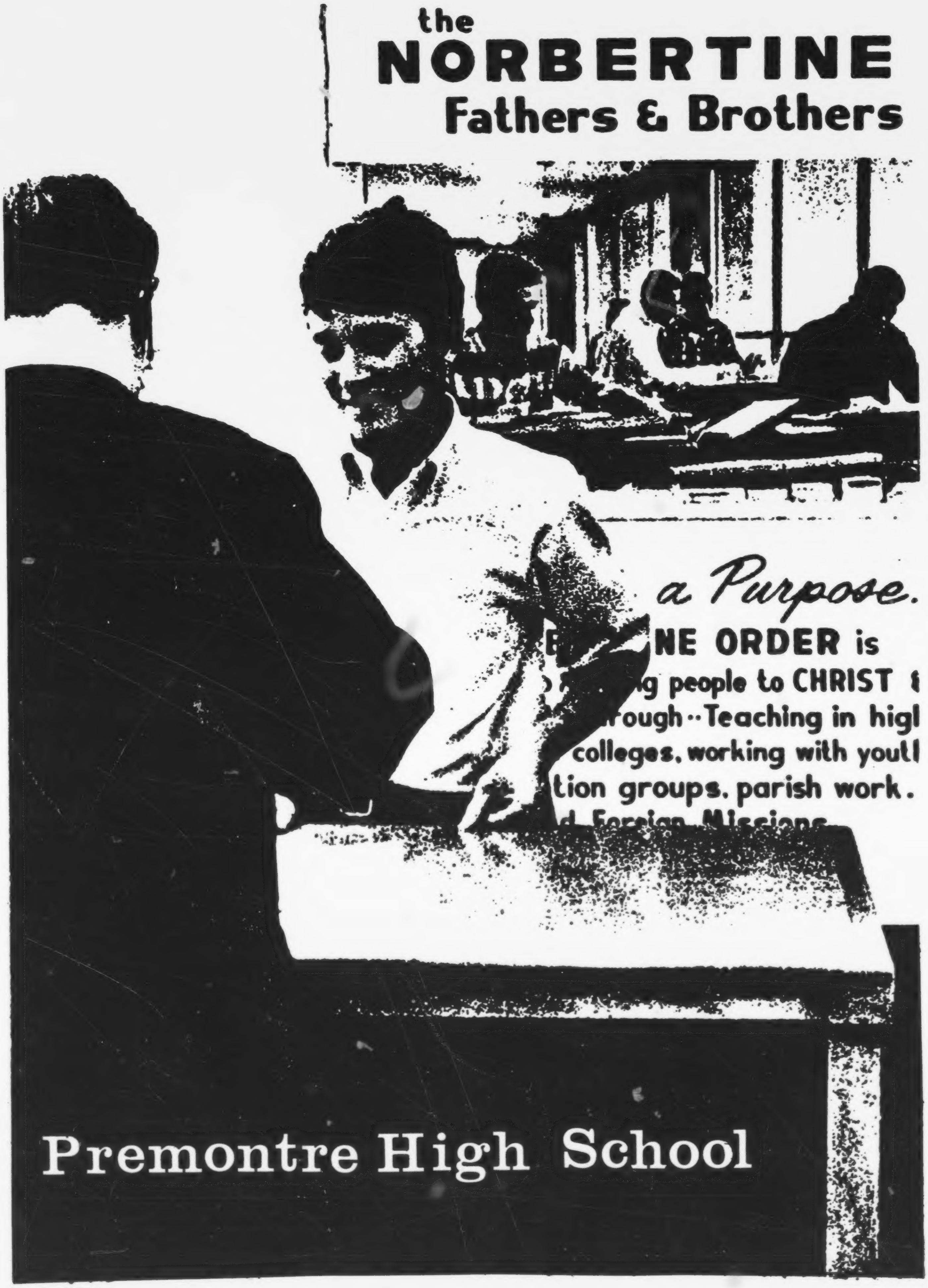
Due to the above approach Mona Shores had no difficulty with student and faculty acceptance of microstorage of information. The general attitude of pupils towards microfilms was most positive. However, recent decisions at Mona Shores to do away with the dual approach and discard all paper issues of periodicals duplicated by microfilm has had very negative results. Now faced with only microfilm, except for current periodicals, the students apparently feel that microfilm is being pushed upon them. A definite, observable reaction against microfilm has set in.

Conclusion. Mona Shores has discovered that the effectiveness and merit of a microfilm program, like that of the library program as a whole, is not judged by its size alone. The major criteria for successful results are:

1. The thoughtful selection of relevant materials.
2. The quality of motivation, assignments, and directions provided by the instructional staff.

However, there have been some failures in the selection of materials. For example, a rather large collection of microfilm on Vietnam, civil disorders and the Great Society legislation was purchased without teacher involvement and is consequently little used. Too often librarians feel that they can run a successful program apart from the school's mainstream of instruction --- the work being done by the classroom teacher. No matter how good a library looks, how orderly its resources are cataloged, no library really functions without the support of the teacher. Continuous work is necessary to encourage and to help instructors integrate the microfilm resources into their lessons.

Nevertheless, the concensus of opinion from the library staff and administrators at Mona Shores is that the money, time, and effort spent to date in the development of a microstorage program has been more than worth while. With good leadership and direction, microfilms can greatly help Mona Shores meet the terrific demands being placed on the school library today.



the
NORBERTINE
Fathers & Brothers

a Purpose.

NE ORDER is
g people to CHRIST
rough··Teaching in hig
colleges, working with yout
tion groups, parish work.
d Foreign Missions

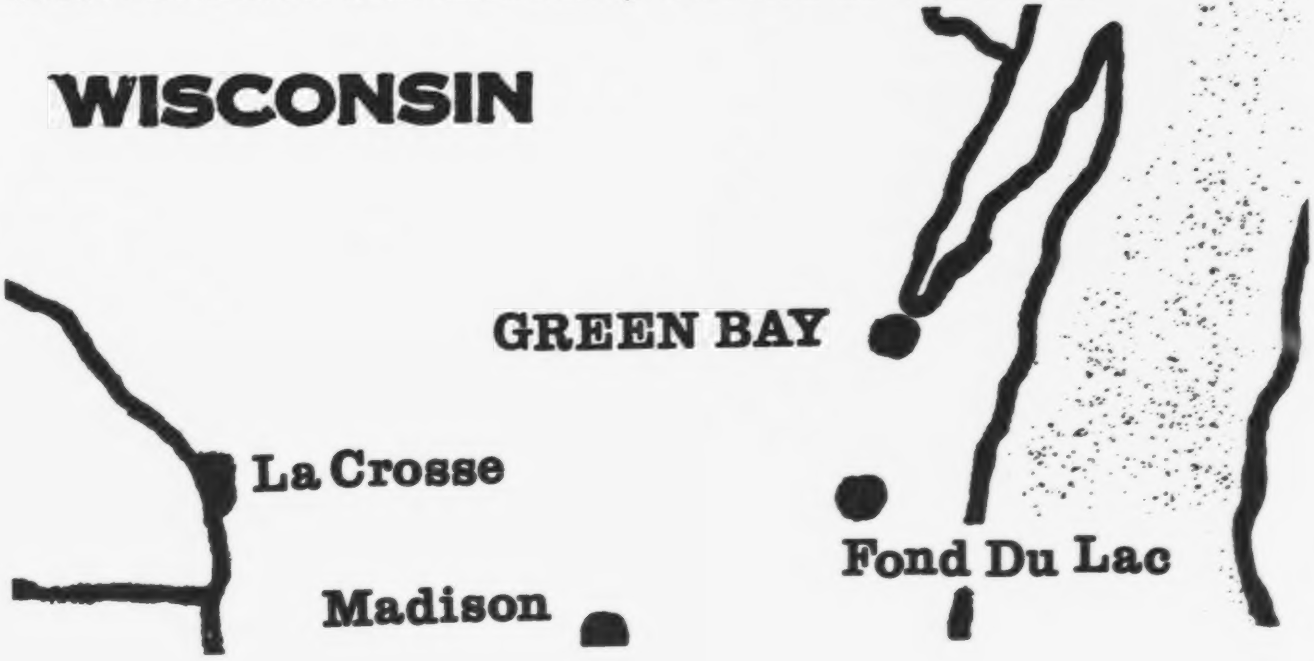
Premontre High School

Premontre High School. Slightly over a mile from the Green Bay Packer Stadium one finds the site of Premontre High School. Premontre, a private Catholic boy's school, owned and operated by the Norbertine Order, has served the Green Bay area for twenty eight years.

The school, which has the capacity for 900 pupils, currently has 800 boys in grades nine through twelve. It offers a full curriculum which seems to be generally college preparatory in nature, including a Junior Reserve Officers Training Corps, one of three such programs in the State of Wisconsin.

A visitor to Premontre is impressed by the cleanliness and orderliness of the school. The library facilities, though not as luxurious as many to be found, are superbly organized and offer superior service to its users. It is due to the purchase by the library of a newly organized collection of microfilm which supports the social studies program that Premontre was chosen as a school to be looked at in more detail.

Investigation revealed Premontre's involvement in a most interesting cooperative interlibrary periodical loan program, which due to its connection with microfilm, will also be discussed.



"The new social studies" Until recently, it was not uncommon to find all students in a social studies class working lock step through a single text. Teachers and pupils had few materials to choose from. However, the picture has changed. The "new social studies" suggests a more individualized approach of inquiry and discovery. The learning of concepts is seen as more important than facts.

Through various media, the resources of the past have been made available to the educator: paperbound books, facsimile editions, microforms. Of these, microforms provide one of the most inexpensive methods of retrieving priceless works of the past for use today. Often the choice is --- have it on microform or not have it. However, the problem to the teacher, to the librarian, to the student, has today become one more of selection rather than availability. The trick is not how to miniaturize information, but how to select it and use it.

It is in this area of selection that large companies, like University Microfilms, can provide a valuable service to education as well as a market for their products. University Microfilms, a Xerox Company, through the expertise available to them is in an excellent position to make a first selection. From vast amounts of information, relevant core collections can be assembled. Focus on the News, is such a collection for use in the teaching of social studies.

FOCUS ON THE NEWS described.

Focus on the News is a 125 page annotated bibliography of 60 periodicals which seem best to support the curriculum of a typical high school --- particularly in the area of social studies.

Nicholas Alter of University Microfilms has compiled this impressive selection tool with the assistance of Emma Christine, a resource teacher at the Gunn Senior High School in Palo Alto, Donald Frizzle, Assistant Superintendent of Schools of the Amherst Regional School District, and librarian Robert Sumpter of Capuchino High School at San Bruno It is surely priority reading for teachers and librarians alike.

The editors have taken the point of view that, in general, news weeklies are interdisciplinary in format. Areas of science, current events, art, and so on, are locked in side-by-side on the film. Also the news weeklies are written in a style and tone that would appeal and be comprehensible to the superior as well as the "average" student.

From the 60 periodicals annotated in Focus, four have been chosen as a core collection. They are:

core collection

Niles' National Register	**1811 - 1849**
Harper's Weekly	**1857 - 1900**
The Nation	**1899 - 1923**
Time	**1923 - 1959**

Spanning a period of about 150 years, on 122 reels of 35mm microfilm, it costs approximately $2000.00. A facsimile index is also to be provided. The remaining periodicals are organized as enrichment backup to the core collection.

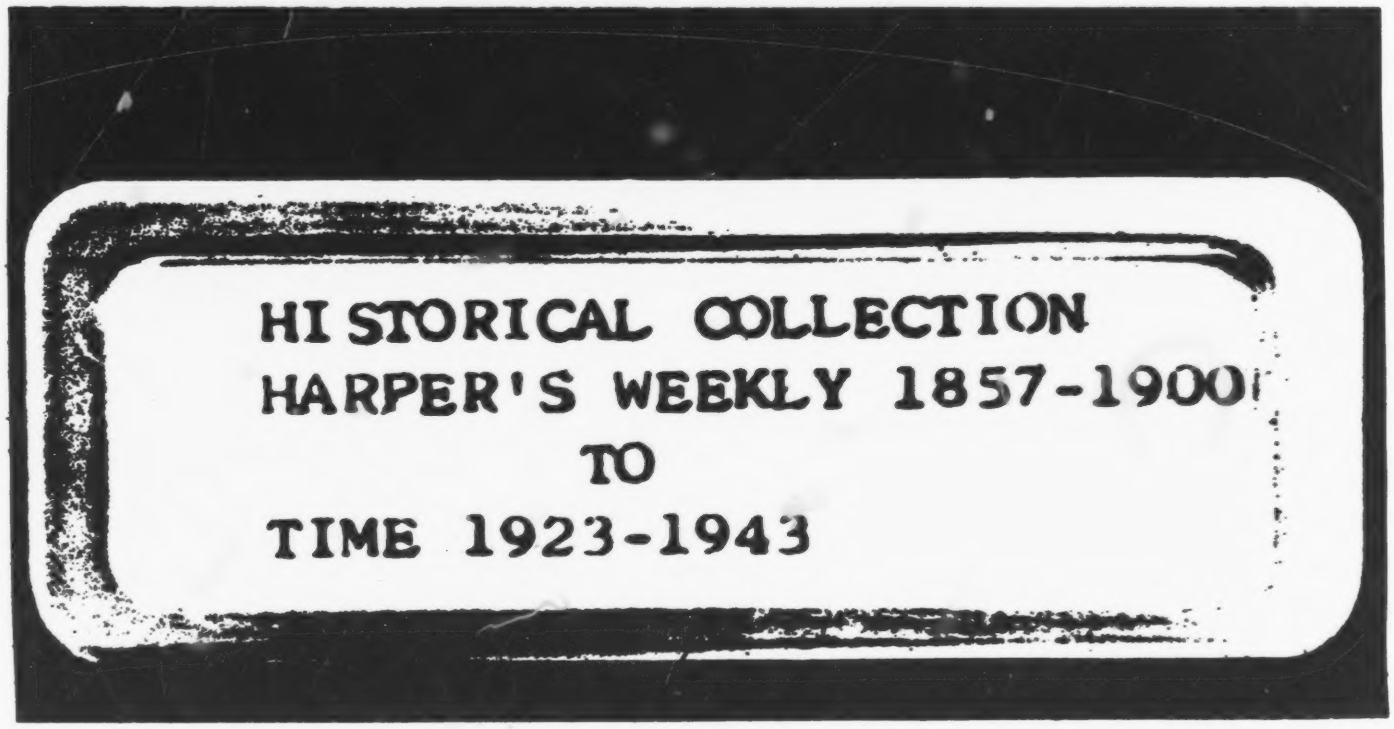
FOCUS at Premontre. Premontre has the core collection of Focus which they purchased with Federal funds from E.S.E.A., Title II.

From the outset, it must be noted that Focus is by itself nothing --- unless the instructors concerned in a particular school see value in its usefulness.

At Premontre, however, Focus has been accepted by the instructors and is slowly becoming a valuable reference to revitalize the social studies program.

Teams of five. Students use Focus in "teams of five," according to Brother Andre, librarian at Premontre. One reader and one reader-printer are available to the students. Often facsimile copies are printed on the reader and taken back to the classroom for class discussion.

The "browsing factor," as the editors of Focus call it, is clearly evident in the use of the microfilm at Premontre. Students working on one subject often find information on other topics of interest in the same location on the film.

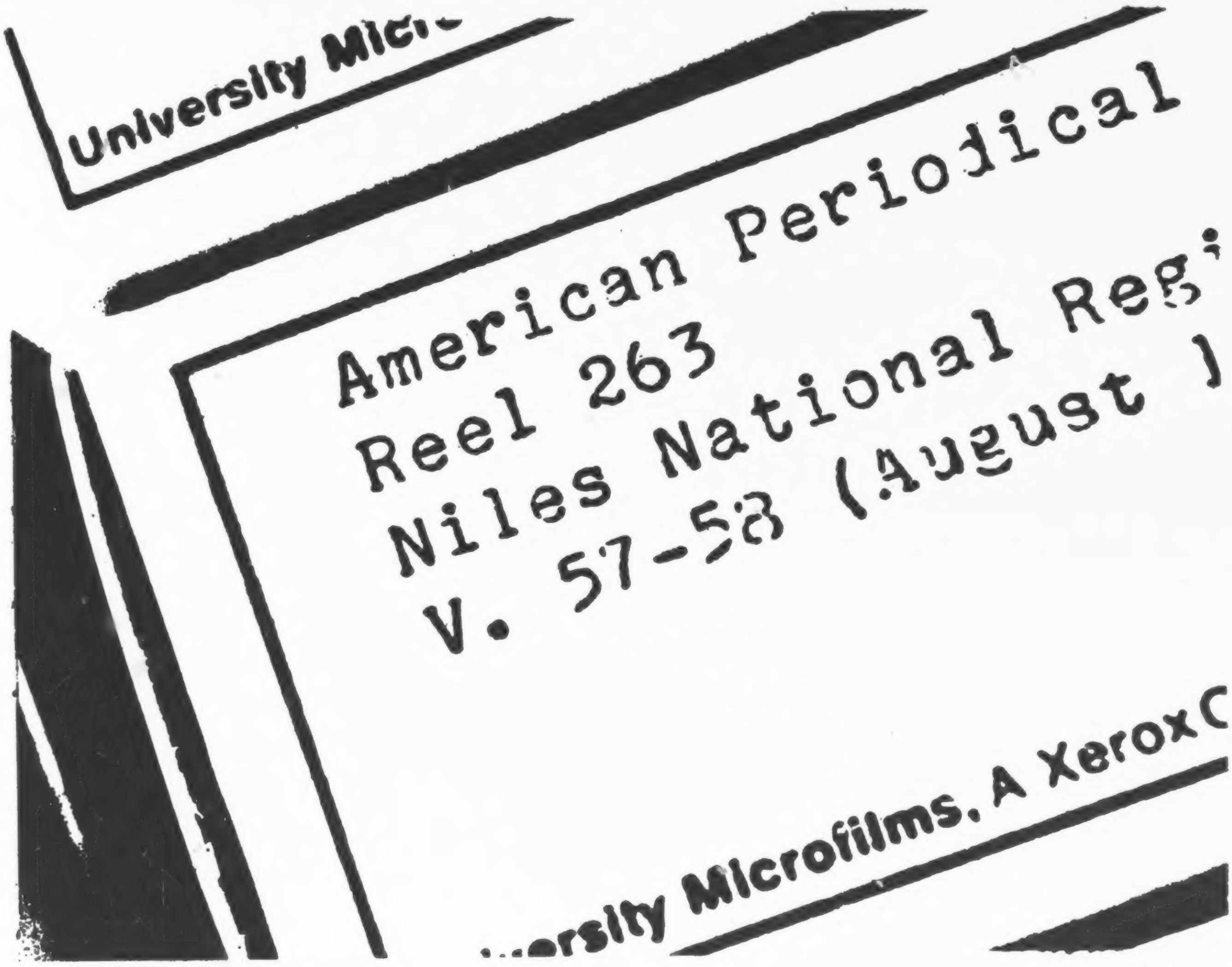


HISTORICAL COLLECTION
HARPER'S WEEKLY 1857-1900
TO
TIME 1923-1943

FOCUS revisited. A second edition of Focus, is scheduled for release in Spring, 1969. This will be greatly expanded, including some 20 more periodicals in the enrichment section, which will be subdivided on the basis of reading level.

The core collection will remain the same, but the annotations on each of the four runs of periodicals will be enlarged to include more teaching suggestions. An example of this might be the procedure of verifying textbook material through the study of source material provided by Focus.

FOCUS on the..? If Focus is commercially successful, which indeed it should be, it is likely that University Microfilms will extrapolate the idea of Focus into other areas of the curriculum, or to more specialized areas of the social studies.

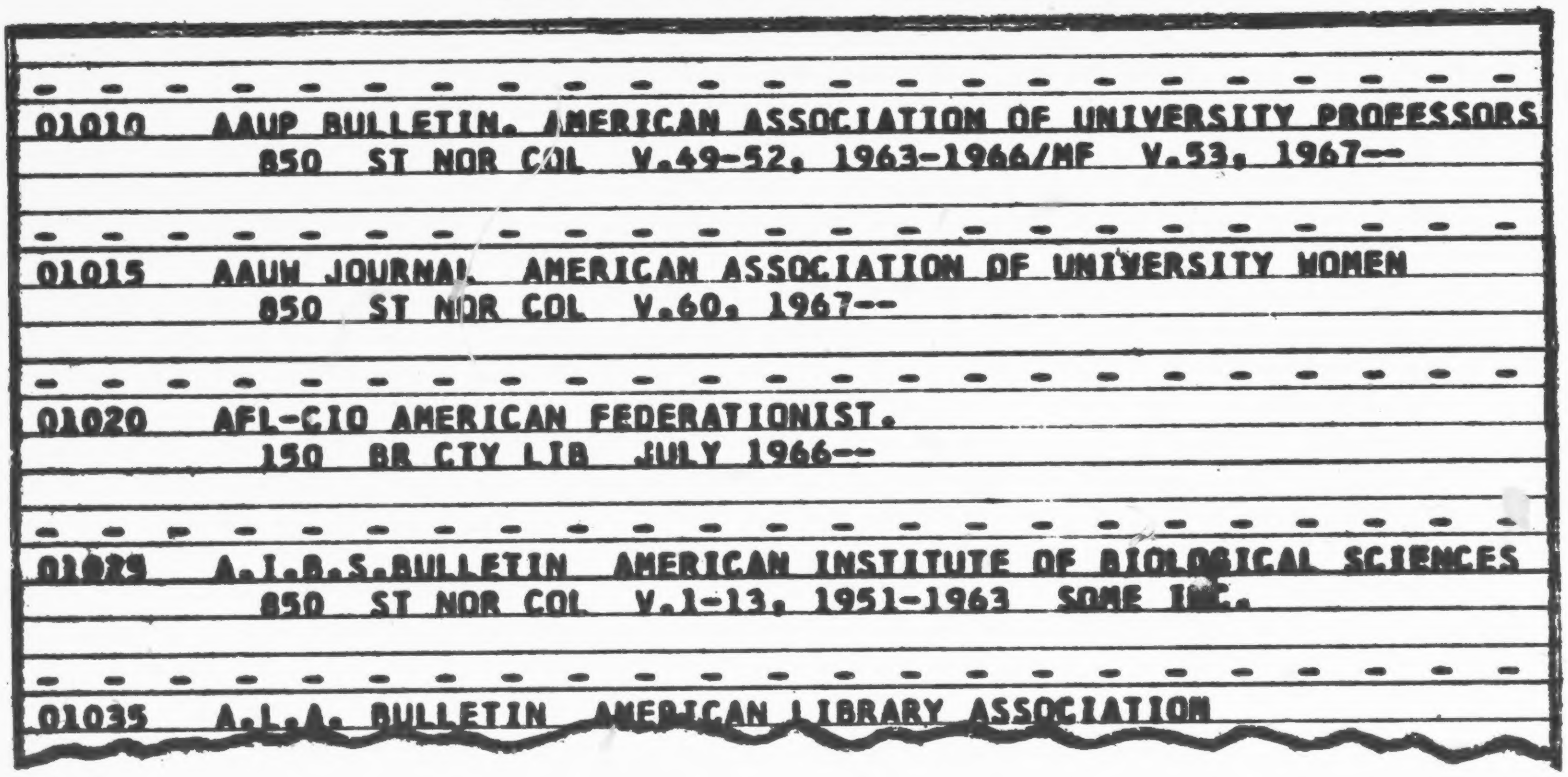

University Micr
American Periodical
Reel 263
Niles National Reg
V. 57-58 (August
ersity Microfilms, A Xerox C

Periodical---microfilm cooperative. Cooperative ventures between libraries have constantly been supported by standards and library leaders. However, one can find few such ventures which are apparently as successful as the newly formed program for the interlibrary loan of periodicals and microfilms in the Green Bay area.

Currently 13 libraries are involved, including junior high schools, senior high schools, technical schools, and colleges. Initially funded by a Title III, L.S.C.A. Grant, the program hopes to become self supporting.

The mechanics of the system are not difficult. A composite listing of the periodical holdings (including microforms) has been generated in the form of a computer printout by a local data processing firm. Information on this printout includes: an accession number, the name of the periodical, institution, holdings, and form of holdings, e.g., whether it is in paper or microfilm form.

COMPOSITE PRINTOUT



```
01010   AAUP BULLETIN. AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS
             850  ST NOR COL  V.49-52, 1963-1966/MF  V.53, 1967--

01015   AAUW JOURNAL  AMERICAN ASSOCIATION OF UNIVERSITY WOMEN
             850  ST NOR COL  V.60, 1967--

01020   AFL-CIO AMERICAN FEDERATIONIST.
             150  BR CTY LIB  JULY 1966--

01025   A.I.B.S.BULLETIN  AMERICAN INSTITUTE OF BIOLOGICAL SCIENCES
             850  ST NOR COL  V.1-13, 1951-1963  SOME INC.

01035   A.L.A. BULLETIN  AMERICAN LIBRARY ASSOCIATION
```

Participating libraries merely make requests for materials (generally by telephone). Materials are exchanged by mail.

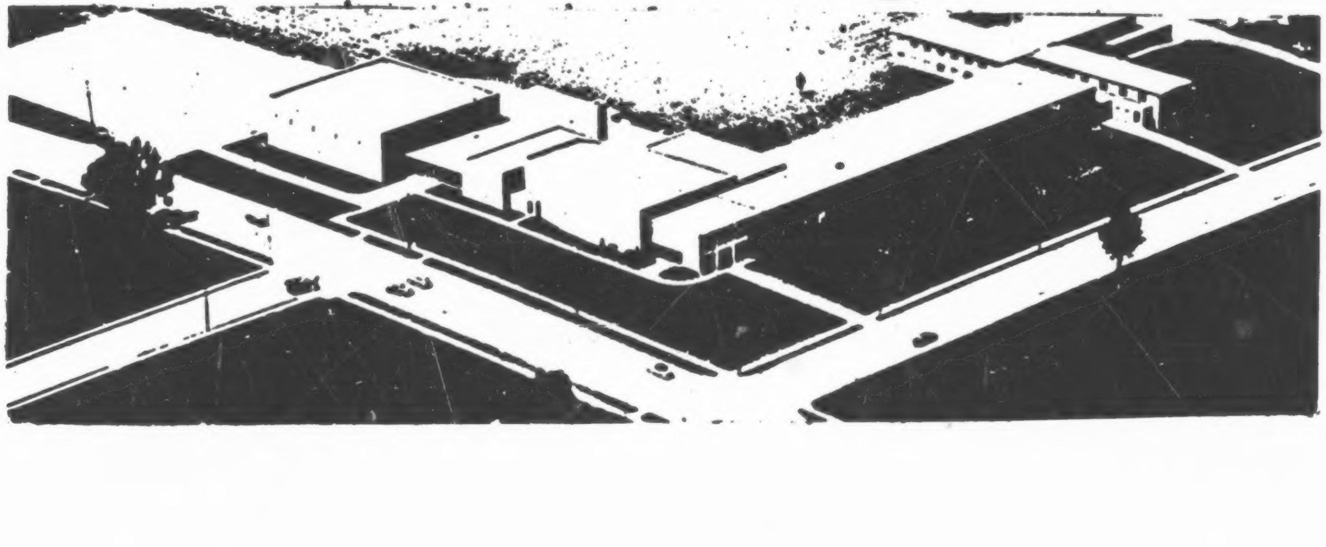
Periodicals are loaned in various forms: photocopy, paper copy, or microfilm. Each participating library is committed to provide policies which insure safety of the material. Reels of microfilm are loaned only at the discretion of the lending library.

The factor which has apparently determined the success of the program is a feeling of mutual cooperation between the participating institutions. A little cooperation has increased service, particularly in the smaller libraries, to a fantastic extent. "The program" says Brother Andre, Premontre Librarian, "has been 99 per cent successful." He indicated that now when a pupil wants an article, for example one referred to in the bibliography of a textbook, he often may obtain it that same day.

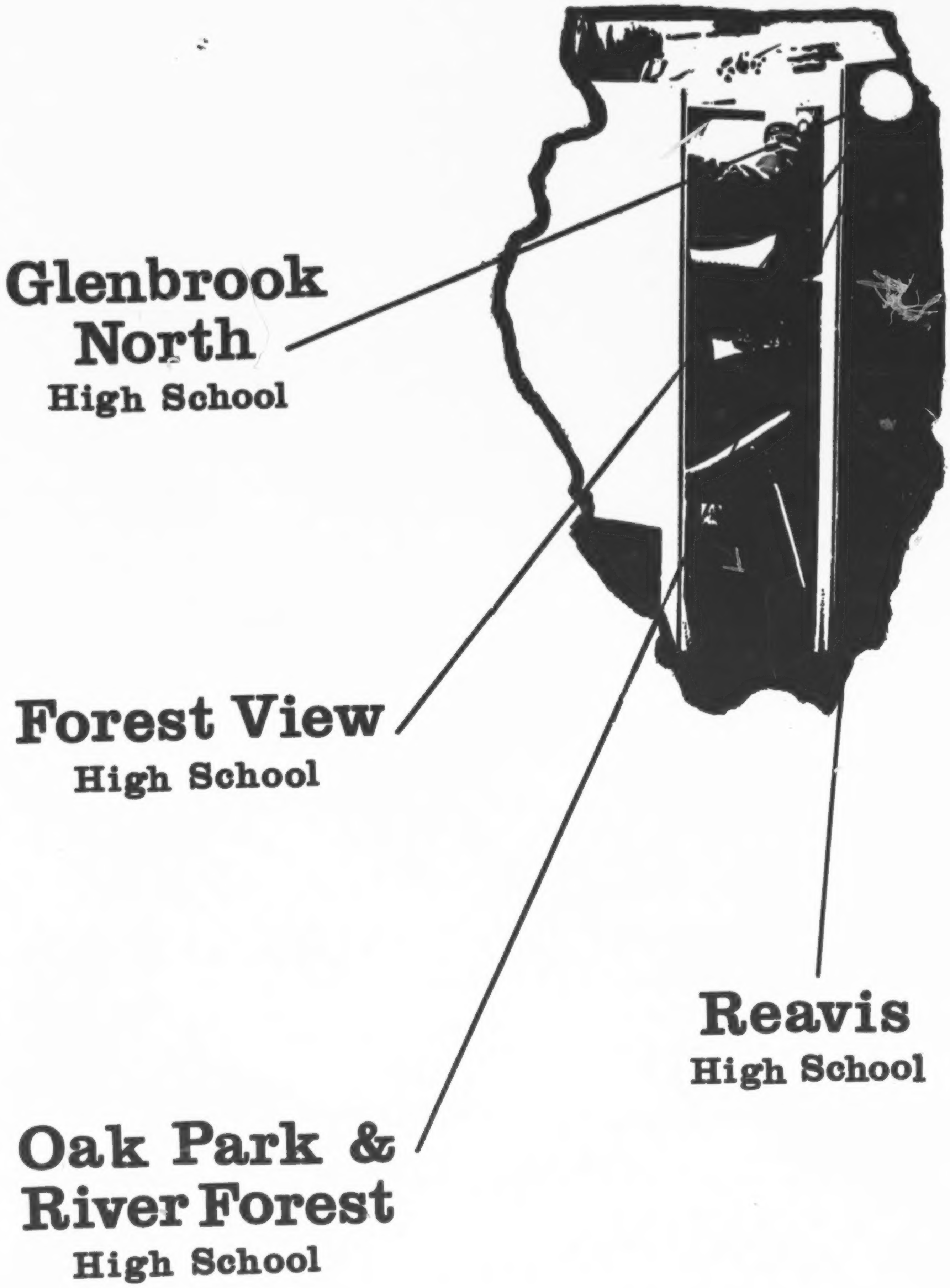
Monthly meetings are held by an advisory committee composed of one representative from each of the participating agencies. The committee is responsible for written evaluations and progress reports, in addition to resolving problems when they occur.

AERIAL VIEW

Premontre High School



CHICAGO
SUBURBS


Glenbrook North High School
Forest View High School
Reavis High School
Oak Park & River Forest High School

Microforms in the suburbs. What schools are using microforms? The companies who sell the microform equipment and film seem to suggest the prominence of a large suburban growth model. While this is hard to substantiate due to confidential sales lists, sketchy evidence suggests that this is indeed the case --- microform technology is being used more by schools in suburban areas than elsewhere.

The four schools from the Chicago area discussed in this section are examples of this apparent growth trend. The Reavis High School in Oak Lawn was chosen due to its long time involvement with microform. The widely reported Knapp Project School, Oak Park River Forest High School, was selected due to its reputation for educational excellence. Glenbrook North High School in Northbrook, and the Forest View High School in Arlington Heights were picked on a random basis.

Reavis High School. Reavis High School is certainly one of the first high schools to utilize microfilm for the storing of periodical literature. It is perhaps one of the best known schools in this regard due to the writing of librarian Raymond Erbes. One article in particular, "Microfilm Can Increase Space, Update Services," has been reprinted and distributed widely by University Microfilms. In this article and others written at about this time(1965) the advantages of using microfilm are generally discussed. It is worthwhile to mention these at this point:

Advantages of microfilm

SPACE SAVING	Microfilm saves about 90 per cent of the space previously required for bound or unbound volumes of periodicals.
SECURITY	Microfilm does not permit malicious clipping of information in demand.
	Microfilm is generally not taken from the library since it can not be used without readers.
	Lost or destroyed films can be quickly and inexpensively replaced.
PERMANANCY	Properly processed microfilm is capable of lasting 300 years or more.
MAINTENANCE	The cost of storing microfilm is economical.
COST FACTORS	The purchase price of microfilm approximates, or is less than, the cost of binding the paper copies.
COMPLETENESS	Microfilm relieves the librarian from concern over missing issues.
STANDARDS	Old, but particularily new libraries, can easily meet recommended periodical standards at comparatively little cost.
DUPLICATION	With a reader-printer paper copies can be made of desired pages.
TRANSFERABLE	Students learn how to use a library tool which can be used in college or in later life.

Some newer seen advantages of microfilm which can not be substantiated but nevertheless seem likely are:

INTEGRATIVE	Microforms lend themselves to future systems applications of storage and retrieval.
STIMULATIVE	Slow learners appear to react favorably to microfilmed materials, perhaps drawing a parallel with television.

Selection versus collecting. At all four schools a strong philosophy of service to both pupils and instructors was evident, and microfilm was selected (as opposed to collected) to help upgrade service. The schools either formally or informally conducted investigations to learn which periodicals were in most frequent demand. Consequently, Reavis, Glenbrook North, and Forest View have built contemporary collections. Below are listed the periodical holdings of Reavis and Glenbrook North:

Glenbrook North

(Runs of 1960 - to date)

AMERICA
AMERICAN HERITAGE
AAHPER
ATLANTIC MONTHLY
BUSINESS WEEK
COLLEGE ENGLISH
CURRENT HISTORY
ETC.
ENGLISH JOURNAL
FORTUNE
HARPER'S
JOURNAL OF EC. ENTOMOLOGY
LIFE
LIFE (COLOR PLATES)
NATION
NATIONAL REVIEW
NATURAL HISTORY
NEW REPUBLIC
SATURDAY EVENING POST
SATURDAY REVIEW
SCIENCE
SCIENCE NEWS
SCIENTIFIC AMERICAN
SENIOR SCHOLASTIC
THEATRE ARTS
TODAY'S HEALTH
U.S. NEWS & WORLD REPORT
NEW YORK TIMES

Reavis

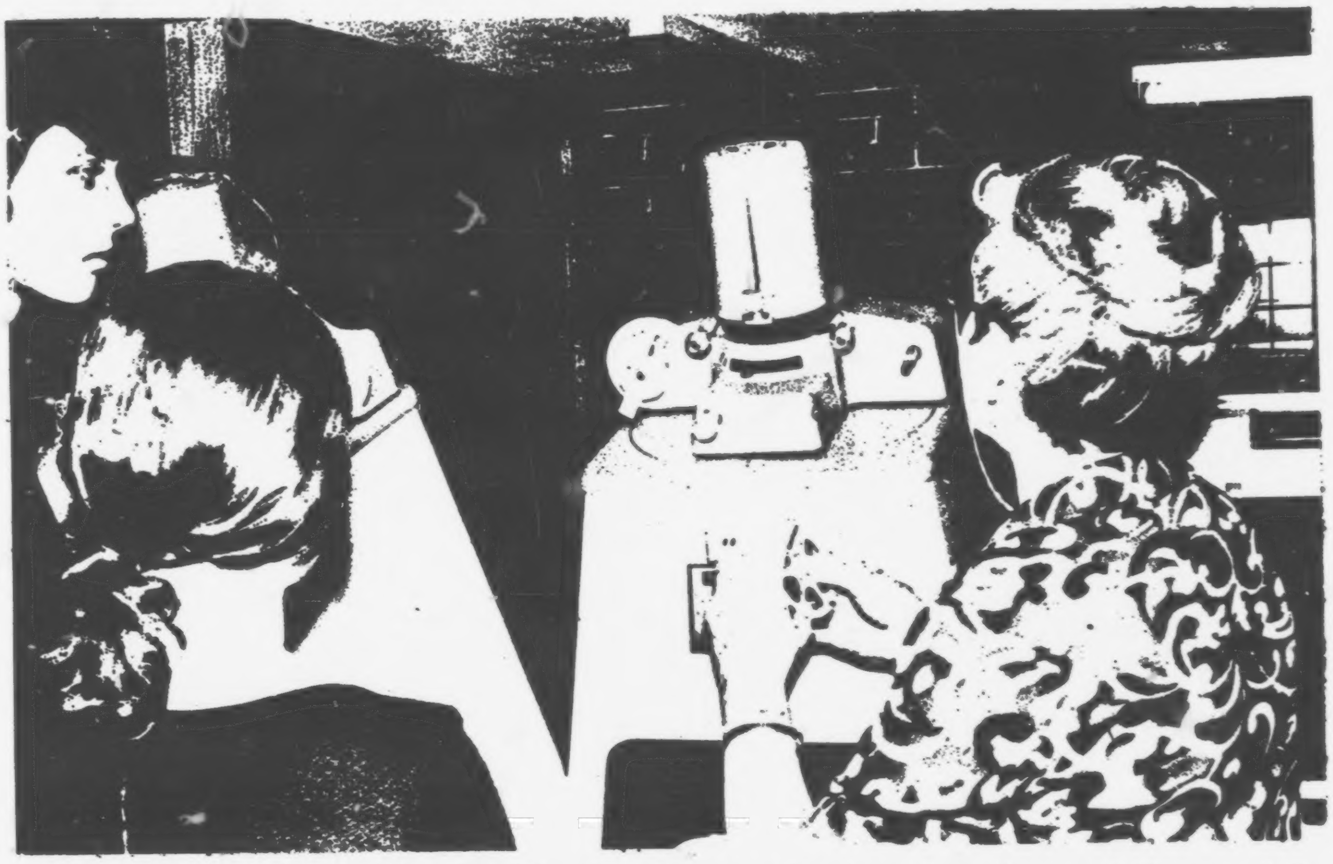
(Runs of 1956 - to date)

ATLANTIC MONTHLY
BETTER HOMES & GARDENS
BUSINESS WEEK
CHANGING TIMES
CHRISTIAN CENTURY
COMMONWEAL
CONSUMER REPORTS
CORONET
CURRENT HISTORY
FARM JOURNAL
FLYING
HARPER'S
HOLIDAY
LADIES' HOME JOURNAL
LIFE
McCALLS
NATION
NATURAL HISTORY
NATURE
N.E.A. JOURNAL
NEW REPUBLIC
NEWSWEEK
PARENTS
READERS DIGEST
SATURDAY EVENING POST
SATURDAY REVIEW
SCIENCE
SCIENCE DIGEST
SCIENCE NEWS
SCIENTIFIC AMERICAN
SENIOR SCHOLASTIC
THEATRE ARTS
TIME
TODAY'S HEALTH
UNITED NATIONS REVIEW
UN MONTHLY CHRONICLE
U.S. NEWS & WORLD RPT.
VITAL SPEECHES

At Oak Park River Forest selection has taken a different turn with the development of historical runs of periodicals and newspapers. For example:

ATLANTIC MONTHLY	1857 - 1867	
HARPER'S WEEKLY	1857 - 1900	
NEW YORK TIMES	1900 - 1920	1928 - 1929
MOBILE REGISTER	June, 1861 - October, 1861	

Asian Studies at Oak Park. Of special interest is the "Journal of Asian Studies," used intensively by students taking the course offered at Oak Park in Asian Studies. This is an independent study program offering college bound seniors a core course in Asian history supplemented by a wide variety of resources. Part of the success of the program is attributed to the supporting materials, including the hard to get journals provided on microforms.



LIBRARIAN at Glenbrook North demonstrates loading of Recordak reader. In all four schools students were expected to learn how to operate the equipment, with help provided if needed.

Mathematics and science resource center. The mathematics and science resource center at Oak Park provides a microfilm reader and microfilm editions of:

SCIENCE DIGEST	1959 - date
SCIENCE NEWS	1959 - date
POPULAR SCIENCE	1960 - date

This center is an excellent example of the use of microfilm as a means of distributing information to those who need it. Getting the information out of the library to where it is needed is long overdue.

A SEPARATE ROOM provided excellent quarters for this microform hardware at Glenbrook. Writing space, however, was almost non-existent.

Hardware in the suburbs. The equipment in all four schools was, in general, superior in quantity and quality to that which is commonly found in secondary schools.

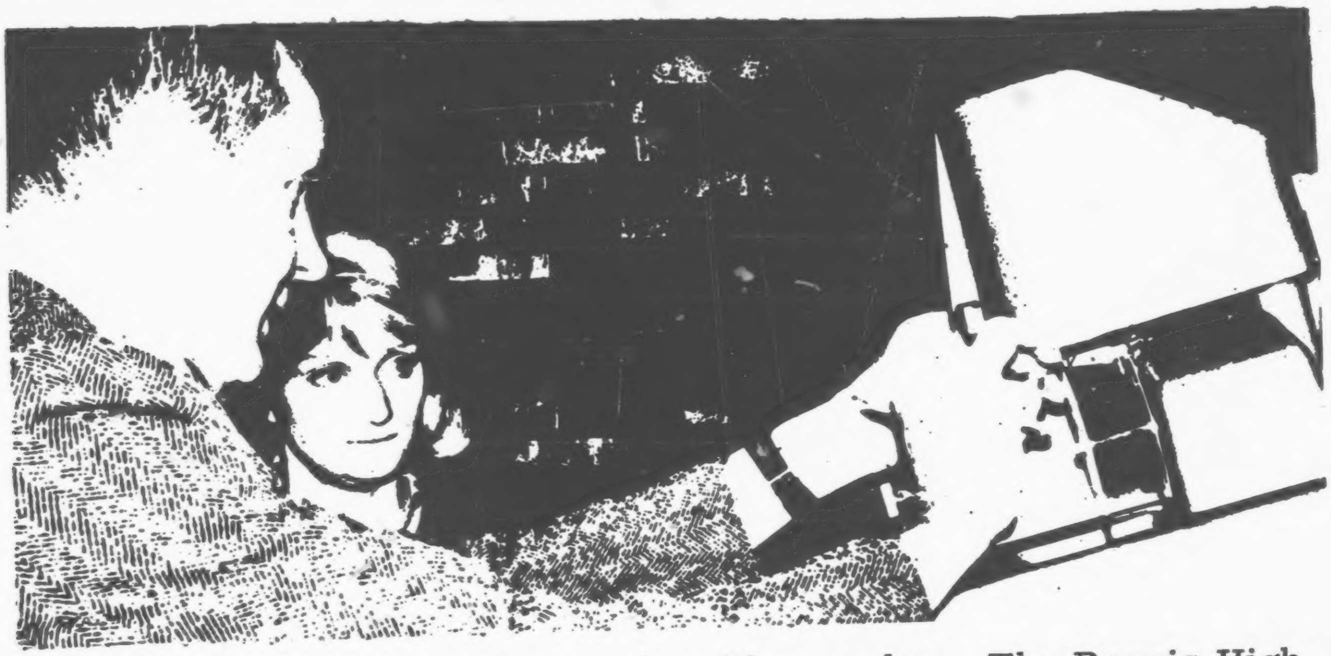
Each of these schools had at least one reader-printer, a necessary piece of equipment for all school libraries wishing to offer good microform service.

Reavis, for example, with a student population of 2,400 has six Recordak readers and one Magnaprint reader-printer, with an additional reader-printer on order.

Glenbrook with 2,000 pupils has two Recordak readers and a 3M reader-printer. They also had three University Microfilm readers, Model 1414, as backup viewers during periods of heavy microform use.

Forest View was the only school to rely heavily on University Microfilm readers (they had five), but had in addition a 3M reader-printer.

All schools reported some problems with their reader-printers. It appears, however, that these breakdowns were the result of insufficient use rather than poor quality equipment.



RAYMOND ERBES, pupil and microfilm reader. The Reavis High School Library has seven of these readers made by Eastman Kodak.

Software

Microform selection --- the catalog. All librarians should know what is available in microform --- the software. This would seem imperative... since the choice often is have it in microform, or not have it. Like all instructional materials, microforms should be selected with care in accordance to a written policy of selection. However, unlike book selection with its large body of critical selection materials, the catalog is the main approach to selecting microforms. While librarians classically seem to abhor a catalog for selection, it can be an effective tool if used with care. Sears and Wards catalogs have been most successful selection tools for years --- perhaps catalogs can function also for microform selection.

There is an enormous amount of material available on microform. However, many of these collections are highly sophisticated and not appropriate to secondary school use. The following catalogs, though by no means an inclusive listing, should prove useful in building a microform collection to support the secondary school curriculum.

BELL & HOWELL

In SELECTED NEWSPAPERS, PERIODICALS AND RECORDS IN MICROFORM, the Micro-Photo Division of Bell and Howell brings together source material from significant periods of history around the world. Of special interest to high schools are newspapers on the Civil War and World War I. A memorial collection reporting the events of the assassination of John F. Kennedy on 10 rolls of microfilm for $150.00 is worthy of note.

The Wilderness Road, Cumberland Road, Santa Fe Trail, Chisholm Trail, the Pony Express Route, and others come alive in

NEWSPAPERS ALONG AMERICA'S TRAILS. American history instructors should be made aware of this most interesting catalog.

Also published by Bell and Howell is the "Micro Photo Reader," a newsletter which may be requested by libraries. It contains announcements of new microfilming projects, and news of developments in the microform field.

THE NEW YORK TIMES

The NEW YORK TIMES ON MICROFILM provides an unequaled record of events from 1851 to date. In connection with the INDEX, it is a strong reference tool which supports all areas of the curriculum. School libraries which have the budget generally begin by getting the "full service": a roll of microfilm about every 10 days, a semi-monthly edition of the INDEX, and the cumulative annual INDEX volume. This costs about $40.00 per month for the film and $125.00 for the index services.

PERIOD COLLECTIONS OF THE NEW YORK TIMES ON MICROFORM is a small brochure which merely breaks the Times in logical historical divisions: 1866-77 Reconstruction ($460.00), 1900-13 the Good Years ($1,492.00), 1924-28 the Roaring 20's ($1,386.00), and so on. Older out of print copies of the INDEX have been republished by the Bowker Company for many of these older issues of the Times.

THE NEW YORK TIMES MICROFILM AND INDEX IN THE SCHOOLS is a well written and illustrated 42 page booklet which provides the secondary school instructor some useful teaching methods involving microfilm. It outlines sample lessons not only in the social studies, but for English, economics, science, art, music, home economics and physical education as well.

NCR MICROCARD EDITIONS

MICROCARD EDITIONS publishes and reprints materials on microfiche, micro-opaque cards and microfilm. Their major catalog (number 9 was examined) is organized alphabetically by publication and by broad subject areas. Also included is information on special collections and hardware.

While its contents are on the whole rather "out of the ball park," as far as high schools are concerned, there are many individual items of interest. For example, two collections on microfiche of the Jeffersonian Era provide excellent source material in the colonial, revolutionary and federal periods of American history. Catalog cards are also provided for these collections. In fact, much of the NCR material contains a facsimile copy of its LC catalog card, if available.

THE GUIDE TO MICROFORMS IN PRINT is an annual, cumulative list of materials available on microform. Every two years a SUBJECT GUIDE TO MICROFORMS IN PRINT provides a subject approach to microform selection. Both of these tools, published by NCR, costs about $4.00 each and are as necessary in every school library as BOOKS IN PRINT, and SUBJECT GUIDE TO BOOKS IN PRINT.

UNIVERSITY MICROFILMS

University Microfilms provides a variety of materials on microfilm. Their major thrust is, however, the microfilming of periodicals. Two catalogs are available: Part I, PERIODICALS ON MICROFILM containing over 5,000 periodicals. Part II, BACKFILE PERIODICALS outlines, as its name suggests, the back holdings of University Microfilms. It is worthy to note that to receive current periodical subscriptions on microfilm, a library must subscribe to the paper copy. This requirement is not necessary in the case of ordering back runs of periodicals. A subject index and information on hardware is provided in the Part I catalog.

University Microfilms' also provides a number of subscription services for early American and English periodicals and books available on microform. While these are rather specialized for the average high school, some applications are possible for honors programs.

University Microfilm's newest venture, FOCUS ON THE NEWS, an annotated bibliography to support the social studies curriculum, has been discussed in the Premontre Case Study.

A CONSPECTUS of the programs and products of University Microfilms (a Xerox Company) may be obtained from University Microfilms.

3M IM PRESS

A CATALOG OF TITLES AVAILABLE ON MICROFILM is a listing of selected holdings of the New York Public Library that have been microfilmed by 3M IM/Press. While it is a most sophisticated collection, picking and choosing would be fruitful in selecting items appropriate for a high school collection.

The INTERNATIONAL CULTURAL MATERIALS CATALOG is more in tune with the high school curriculum. In conjunction with Cultural History Research, Inc., the 3M International Microfilm Press has assembled multi-media teaching units, including: slides, tape recordings, photographs, microfilm and teaching guides.

The cultural material concerning Afro-American heritage is particularly impressive. It includes an on-going microfilming of the New York Public Library's Schomburg Collection, a famous library of work by and about American Negroes.

Units in United States regional history are backed up by primary source material on microfilm. CALIFORNIA AND THE SOUTHWEST and NEW ENGLAND are the first two of these history series to be released by 3M IM/Press.

The 3M IM/Press has also become involved with VIEW (see page 14) and has duplicated those VIEWscripts which are applicable for jobs nationally. The VIEW concept has indeed spread from San Diego to other areas of the country. In fact by the end of 1969, it is reported by 3M that the Appalachian Educational Library in Charleston, S.C., will have the largest VIEW program in the country serving parts of six states. Guidance for starting such a program may be obtained from 3M IM/Press.

ERIC

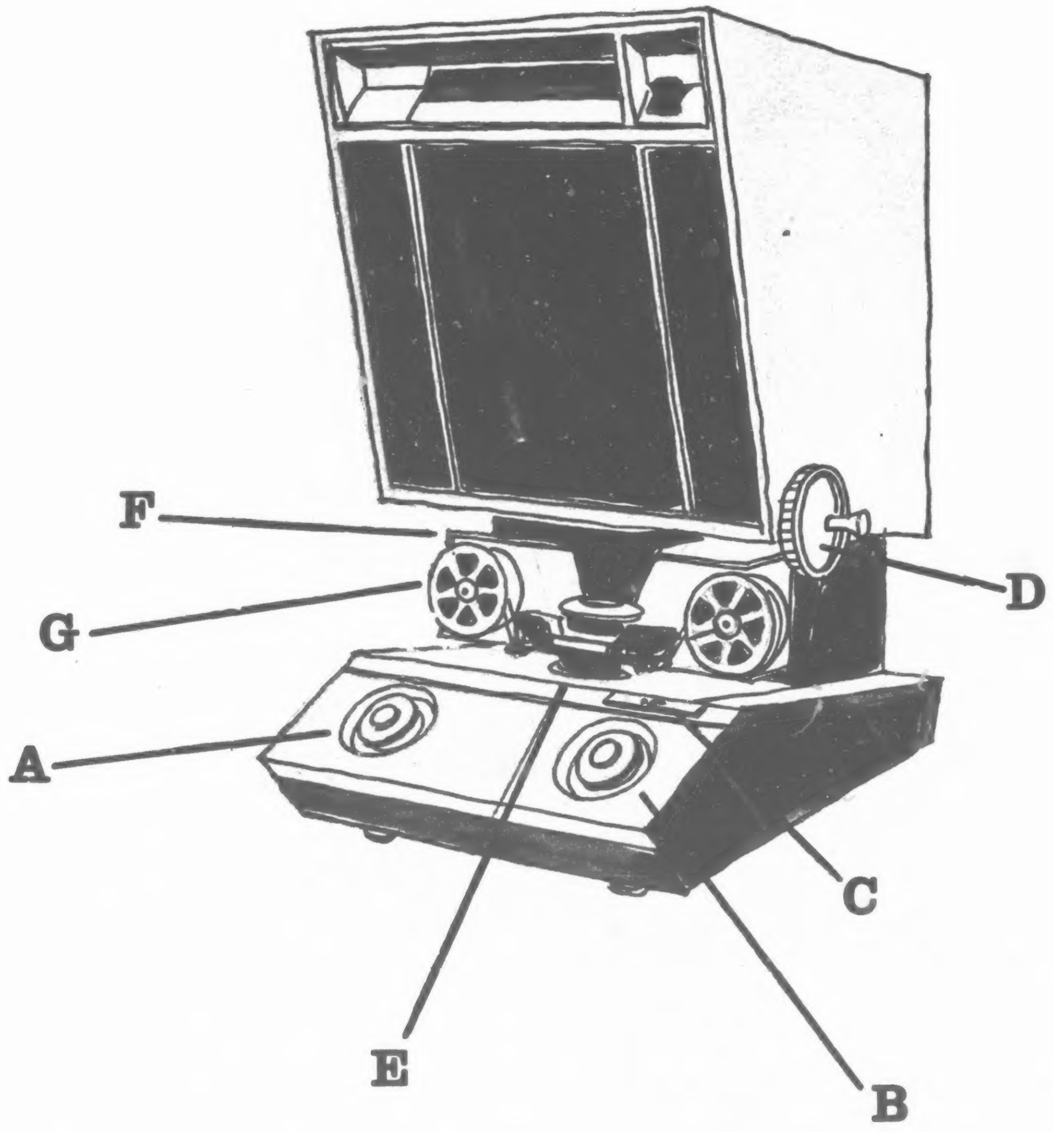
The Educational Resources Education Center is a network to disseminate educational information. It is administered by the U.S.Office of Education and is currently issuing an average of 800 reports per month on microfiche. Information for the system is selected by 20 clearinghouses each which focuses on a specific topic or field. RESEARCH IN EDUCATION (RIE) the index and abstracting journal for the service is published monthly. A yearly subscription for RIE costs about $21.00. The National Cash Register Company under contract from OE sells the full text of documents cited in RIE on microfiche (or hardcopy) at nominal cost. For about $120.00 per month a library may receive all reports issued from ERIC, but most school libraries pick and choose using RIE.

GENERAL MICROFILM COMPANY

General Microfilm offers a number of collections on 35mm microfilm. Collections cover such topics as LITERATURE OF FOLKLORE, AFRICAN DOCUMENTS, CHINESE CULTURE, TRAVEL LITERATURE ON MEXICO AND LATIN AMERICA, and others. GM has recently announced a series of out-of-print source material on the American Revolution which is designed to serve not only scholars, but students on lower levels of competence.

◆

Hardware



(Sketch of a Model 400 Reader-Printer reprinted with the kind permission of the 3M COMPANY.)

THE MICROFORM DILEMMA -- READERS

Reader design. Although the disadvantages of microform are small in relation to its recognized advantages, they are none the less real. The biggest dilemma is likely to be found in the area of reader satisfaction and reader design. While this is really a side issue in this investigation, a few comments seem to be in order.

The teen-age reader. If a high school student has the choice between conventional hard (paper) copy and microform, chances are good that the hard copy will be chosen. Why? Because the image reproduced by most readers leaves much to be desired. Viewing screens are often small with "hot" spots in the center and edges difficult to keep in focus. Most readers are very permanent and resemble a television set --- the user merely stares at the black box.

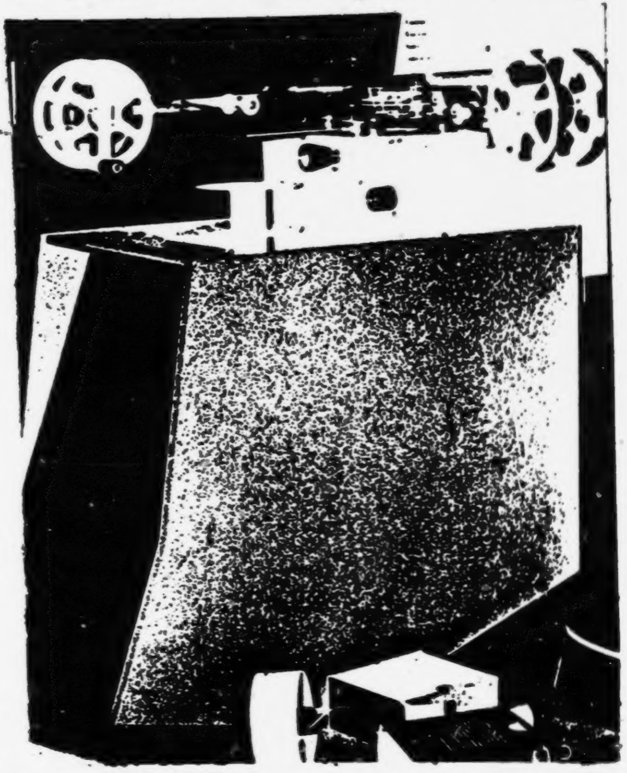
How do high school students like to read? Sitting up. Laying down. Sideways. Swiveling back and forth. Sitting in a comfortable chair. Outside. At home. Certainly any reading device that will not permit shifting position, or is not portable, will rate low with the average teen-age user. It is doubtful that the full potential of microforms can be realized at the secondary school level without improvement in reader design.

Necessity of a reader-printer. The closest reader which meets user standards is one capable of selective printout of hard copy, a reader-printer. The desired frame is located on the screen, a button pushed, and a facsimile is produced in a matter of seconds. Despite the fact that such a printer is stationary, at least the hard copy produced may be read like conventional printed material --- taken to the classroom, taken home, read on the beach, and so on. Secondary schools which are currently having the most success with microform use all have at least one reader-printer.

Xerox Microprinter. The Xerox Microprinter recently marketed has promise for school libraries if they can get enough volume to meet a $125.00 monthly minimum fee. The Microprinter can produce positive copies from positive microform on ordinary bond paper. The printer head slides back to provide a copy-surface for books and other such material. A most flexible machine to the say the least, the Microprinter should be investigated by all libraries.

Microform readers. The general attitude that seems to persist in the secondary school is that microstorage can be done well with cheap equipment. This attitude is reflected in the proliferation of University Microfilm's $125.00 reader. While it is true that this reader has allowed many schools who could not otherwise afford it to reap the benefits of microstorage, it has given the impression to thousands of pupils and teachers alike that the art of microform technology is still in the Dark Ages. A newer model by University Microfilms (1414) selling for about $225.00 has promise because of its improved film transport and wide screen format.

The "tent" More affluent high school libraries are using Recordak readers costing about $ 750.00. While superior to many readers, their huge tent like appearance leaves something to be desired. Taking notes is near to impossible because of a lack of writing space, and viewing closely resembles looking into a tunnel.



THE BEST SELLER. University Microfilm's $125.00 reader.

Better viewers available. Good readers are available if you can pay the price. A most interesting reader from the Library Microfilms and Materials Company, reported to have the largest image of any reader on the market, comes built into an attractive study carrel. Electric drives make material easy to locate. Superior optics provide excellent reproduction qualities.

Portable viewers. While some thorough research has been conducted on the feasibility of an inexpensive portable reader,[1] none has apparently been successful enough to be produced commercially. Microfiche, which is little used should be investigated due to the compactness and low cost of readers for that type of microform. For example, the inexpensive Felco Minifiche projector designed to accept microfiche, aperture cards, filmstrips and slides, has possibilities for use in the library, in the classroom, or for circulation outside of the school.

Addresses to some of the companies which supply microform equipment, and information pertaining to selection may be found in the "Useful Information," and "Bibliography and Suggested Reading," sections at the end of this booklet.

RECORDAK Reader.

---

[1] Verner W. Clapp, "In Quest of an Optical 'Grail'," A. L. A. Bulletin, LV (February 1961), 164-7.

Summary

This booklet has been, in a sense, an application and case study catalog. The case study section discussed in detail a number of current microform programs in secondary schools. The remainder of the booklet overviewed microform activity in general, including: Comments on the history of secondary school microform utilization. Annotations of significant microform projects. An up-to-date listing of microform selection aids. And, observations concerning microform viewing equipment.

Throughout, this booklet has been written from a practical point of view. The many references included in the text itself and in appended listings should help the reader locate additional information on items of interest. Other useful information concerning the housing of microform viewers, and the storing and cataloging of microforms have been included.

Looking at the booklet as a whole, a number of ideas and activities emerge as focal points. The most important of these are:

1. Despite formidable growth of microform technology in business, industry and government, microform utilization in secondary schools has not swept the country like a prarie fire. Nevertheless there is apparently a growing interest in microforms. This interest is reflected in the creative and innovative projects and programs discussed in this booklet.

2. School librarians who have for some time used microforms as an efficient method of storing periodicals and newspapers are becoming more concerned with the instructional aspects of microforms. Manufacturers of microform, likewise, are taking a closer look at what is on the film.

3. The successful use of microform within the instructional framework of the secondary school seems to rest on two major criteria:
    *** The thoughtful selection of relevant materials.
    *** The quality of motivation, assignments and directions provided by the instructional staff.

4. The amount of information available on microform (including original publishing on microform) is increasing rapidly. However, despite the lack of critical selection tools, there are many excellent catalogs available to help build a useful microform collection.

5. The unavailability of adequate portable viewers which meet the needs of teen-age users has slowed the growth of microform as an instructional tool. It is doubtful if microform can be used to its full potential until a more suitable viewer is on the market.

At the present time, due to this lack of portable viewers, equipment for printing a paper copy from microform (such as a reader printer) is essential to a successful microform program.

6. Original microfilming of information, which has been used for some time in storing student records, is finding application in other areas of the school:

    *** Drafting instructors are introducing microfilming as a modern business practice.
    *** A few school libraries are microfilming various types of ephemeral materials.
    *** Microfilming has been introduced at the secondary school level as part of the business studies program.

7. With the proper introduction and administration microform applications are well accepted by pupils and by the instructional staff.

8. The disadvantages of microforms appear to be small in relation to their recognized advantages.

Recommendations

1. While microform technology is not a panacea to improving a school's ability to provide instructional materials --- microforms are seen as a tested, modern, efficient, and economical medium for the storage and retrieval of information. The use of microform demands the attention of any educator responsible for information programs.

2. Great flexibility is needed on the part of all those involved with microforms. The world of the microform is rapidly expanding. Many products are on the market, but many are still somewhere in the wings waiting to be introduced. While there are many claims saying that one particular microform is the best, it is likely that no one form of microform, no one single system, or no one type of equipment is likely to be satisfactory for all uses.

3. Dynamic, creative and imaginative leadership is needed if the full benefits of microform technology are to be realized in the secondary school. While leadership is needed on all levels, good guidance at the regional and state levels are of upmost importance.

The future of microform use by secondary schools is difficult to predict, except to say that microforms in some form will likely provide one solution, perhaps the best solution, to providing sufficient instructional materials to the children in the classrooms of our nation.

HELPFUL INFORMATION

BELL & HOWELL CO.
Micro Photo Division
1700 Shaw Ave.
Cleveland, Ohio 44112

DOCUSTATE, INC.
One B Street
Burlington, Mass. 01803

EASTMAN KODAK CO.
343 State St.
Rochester, N.Y. 14650

E.I. DuPONT DE NEMOURS
Film Department
N-10452
Wilmington, Del. 19898

ELECTRONIC ARTS CORP.
153 W. 53rd St.
New York, N.Y. 10019

ENCYCLOPAEDIA BRITANNICA
425 N. Michigan Ave.
Chicago, Ill. 60611

FORDHAM EQUIPMENT CO.
2377 Hoffman St.
Bronx, N.Y. 10458

IBM
Data Processing Division
112 E. Post Road
White Plains, N.Y. 10601

INFORMATION DESIGN INC.
3247 Middlefield Road
Menlo Park, Calif. 94025

LIBRARY MICROFILMS & MATERIALS CO.
5709 Mesmer Ave.
Culver City, Calif. 90203

LTP (LIBRARY TECHNOLOGY PROGRAM)
American Library Association
50 E. Huron St.
Chicago, Ill. 60611

MICROFICHE FOUNDATION
101 Doelenstratt, Delft
The Netherlands

NCR/MICROCARD EDITIONS
901 27th St. N.W.
Washington, D.C 20037

NEW YORK TIMES
Library Services Department
229 W. 42nd St.
New York, N.Y. 10036

READEX MICROFILM CORP.
P.O. Box 235
Princeton Jct., N.J.

RECORDAK CORP.
770 Broadway
New York, N.Y. 10003

REMINGTON RAND
Office Systems Division
122 E. 42nd St.
New York, N.Y. 10017

RESEARCH & MICROFILM PUBLICATIONS
CCM Information Sciences, Inc.
866 3rd. Ave.
New York, N.Y. 10022

3M COMPANY
Microfilm Products Division
St. Paul, Minn. 55101

3M IM/PRESS
P.O. Box 720
Times Square Station
New York, N.Y. 10036

UNIVERSITY MICROFILMS
(A Xerox Company)
300 N. Zeeb Road
Ann Arbor, Mich. 48106

XEROX CORP.
P.O. Box 1540
Rochester, N.Y. 14603

BIBLIOGRAPHY AND SUGGESTED READING

Luther, Frederick. "The Language of Lilliput: A Thesaurus for Users of Microfilm." *The Library Journal*, LXXXVI (March 1, 1961- The Problem and Preparation for Microfilming) (July, 1961 - The Microformats) (October 1, 1961 - Production of Microfilm) (November 1, 1961 - Economics of Microfilming), LXXXVII (January 1, 1962 - Equipment) (March 1, 1962 - Glossary and Index).

Frederick Luther, well known in the microfilm field for his excellent book, *Microfilm --- A History, 1839-1900*, has written this informative series on all aspects of microform technology. Luther's interesting style makes him a pleasure to read.

Maloney, Roy T. *Portable Microvisual Systems*. California: Lederer Street and Zeuss Co., Inc., 1966. Pp. 125.

An inspiring book for individuals wishing a quick overview of microform storage and the potentiality of portable microvisual systems. Maloney describes systems which provide the user real time visual access to vast resources of information. Ultra-microfiche technology which permits 9,000 pages of print on one 2 by 2 inch film chip is briefly discussed as a system which shows promise. This is interesting, since a new program by Encyclopaedia Britannica to sell "libraries" on UMF, may very well make this media a standard type for library storage. Aspects of retrieval using facsimile transmission is discussed thoroughly. Bibliography. Addresses.

Nelson, Carl E. *Microfilm Technology: Engineering and Related Fields*. New York: McGraw Hill Book Co., 1965. Pp. xiii +397.

A comprehensive technical text on microfilm technology. While slanted towards engineering applications, the book provides a good reference source for other users of microform. For a book similar to this but more readable, see Verry and Wright in this Bibliography. Glossary. Index.

3 M Company. *Microfilm and the School Library: Background for School Librarians.* Minneapolis: The 3M Co., 1967. Pp. 20.

Written By Robbie Robbins of 3M, this is the best source for introducing educators to microfilm. It covers basic formats , and their advantages and disadvantages. It suggests answers to questions that people often ask about microfilm, for example, whether to have negative or positive film in a school library. It is a must booklet for anyone wishing to "sell" someone else on microfilm for the school library. The booklet is currently being revised.

Verry, H. R., and Wright, Gordon H. *Microcopying Methods.* London: The Focal Press, 1967. Pp. 183.

This is an easy reading book on a rather technical subject. It discusses the purposes of microrecording, types of microform, technical aspects, and costs. Of particular interest to librarians and others in information science is a lengthy section on rapid selector devices. Another section concerning the use of microforms in drafting should be of interest to industrial arts instructors. Useful appended information include: microfilms as evidence, microfilm standards, listing of manufactures and suppliers, microfilm publishers, and glossary. Index.

Xerox. *Microfilm.* Rochester, New York: Xerox Corp., n.d., Pp. 30.

This booklet provides technical information on microfilm processing, processing equipment and data relating to microfilm quality. Since students always are interested in "how" things are done, this source provides an inexpensive solution. Hopefully copies may still be obtained from Xerox.

COLOPHON

Composed on an IBM Executive typewriter with pica type. Display work in Charendon Medium. Original photographs on Tri-X, processed on intermediate Kodalith Ortho films, by T. G. Lee and Nancy Peace at the University of Michigan Audio-Visual Education Center. Printed by offset lithography by Litho Crafters, Inc., 7101 Jackson Rd., Ann Arbor, Michigan. TWO THOUSAND copies were printed.